



Australian Government

Department of Education, Employment and Workplace Relations

CPPSIS6004A Design a spatial project plan

Release: 1

CPPSIS6004A Design a spatial project plan

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit of competency specifies the outcomes required to plan for a range of spatial information services (SIS) projects. It requires the ability to apply strategic planning processes, incorporating analysis of information and concepts at technical, practical and abstract levels. It also requires accountability for personal and group outcomes. Functions will entail complying with, and developing or amending, organisational guidelines.

Application of the Unit

Application of the unit

This unit of competency supports high-level project management activity in the SIS industry sector. It requires the application of planning, organisational, negotiation, high-level communication and problem-solving; the ability to demonstrate initiative and enterprise; interpreting technical documentation; and an understanding of technology. The skills and knowledge acquired upon completion of this unit would support the needs of employees in surveying, cartography, town planning, mapping and geographic information systems.

While no licensing, legislative, regulatory or certification requirements apply holistically to this unit at the time of publication, relevant federal, and state or territory legislation, regulations and codes of practice impact upon this unit (see unit performance criteria and range statement).

Licensing/Regulatory Information

Refer to Application of the Unit

Pre-Requisites

Prerequisite units Nil

Employability Skills Information

Employability skills The required outcomes described in this unit of competency contain applicable facets of employability skills. The Employability Skills Summary of the qualification in which this unit of competency is packaged, will assist in identifying employability skills requirements.

Elements and Performance Criteria Pre-Content

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

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Develop an SIS project plan.	1.1 Nature of the <i>spatial information services project</i> is determined according to <i>legislative requirements</i>. 1.2 Project tasks are clearly defined in the <i>project plans</i>. 1.3 Quality standards and performance indicators required to monitor and achieve project deliverables are determined according to <i>organisational guidelines</i>. 1.4 Duration, effort, sequence and interdependence of tasks are determined from the brief, in consultation with appropriate <i>stakeholders</i>. 1.5 Potential, perceived and actual risk as well as options to manage risks are investigated and clearly recorded in the project plan. 1.6 <i>Contingencies</i> and problems are considered and planned for. 1.7 Skills and knowledge are updated to accommodate project plans.
2 Estimate project costs.	2.1 Project costs are estimated to enable budgets to be developed and implemented. 2.2 <i>Cost control processes</i> are developed and agreed to ensure clarity of understanding and ongoing management of project finances. 2.3 Where appropriate, project organisation, structure and costs, including <i>spatial technology</i>, are agreed with higher authority.
3 Determine resource requirements.	3.1 Based on the project scope, human resources, equipment and material requirements for individual tasks are determined in consultation with appropriate stakeholders. 3.2 Skills and knowledge are updated to accommodate changes in operating environment. 3.3 Contingencies and <i>risk management processes</i> are considered and planned for. 3.4 <i>Higher authority</i> endorsements regarding resources and equipment are obtained where necessary. 3.5 Personnel are assigned as appropriate to meet competency requirements according to organisational recruitment guidelines. 3.6 Resource and equipment access strategies and management plans are developed and agreed to according to organisational guidelines.
4 Assign tasks and train	4.1 Individual's responsibilities, authority and personal

ELEMENT	PERFORMANCE CRITERIA
personnel.	performance measurement criteria are agreed to ensure clarity of understanding of the work and provide a basis for ongoing assessment. 4.2 Ongoing development and training for project team members is identified, planned for and implemented to achieve overall project objectives. 4.3 OHS issues are considered at all times.
5 Communicate project requirements.	5.1 Implementation personnel are identified on the basis of the project plan and notified of their involvement according to organisational guidelines. 5.2 Project details are communicated to implementation personnel and verified to ensure understanding. 5.3 Specific roles and responsibilities of team members and stakeholders are clarified and agreed and reporting requirements are clearly outlined. 5.4 Project change proposals are considered and changes are recommended and documented according to organisational policies and guidelines.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the essential skills and knowledge and their level, required for this unit.

Required skills:

- ability to relate to people from a range of social, cultural and ethnic backgrounds and with a range of physical and mental abilities
- communication skills to:
 - consult effectively with clients and colleagues
 - impart knowledge and ideas through oral, written and visual means
- computer skills (high technical user level) to develop business documentation
- delegation of duties
- human resource management in relation to recruitment and performance setting
- literacy skills to:
 - assess, develop and use workplace information
 - locate and interpret legislation and other written documentation
 - prepare and manage documentation and information flow
 - read and write key performance reports, including technical reports

REQUIRED SKILLS AND KNOWLEDGE

- research and evaluate (high level)
- negotiation skills (high level)
- numeracy skills to:
 - analyse errors
 - conduct image analysis
 - estimate costs
 - interpret and analyse statistics
 - perform mental calculations
 - record with accuracy and precision
 - undertake high level computations
- organisational skills to:
 - plan and coordinate technical and human resource inputs to research activities
 - plan and prioritise activities to meet contractual requirements
- presentation of information (high level)
- self-management skills
- spatial skills to:
 - exercise precision and accuracy in spatial project activity
 - perform spatial data archival and retrieval and train others in this task
 - perform spatial data management and manipulation and train others in this task
 - perform file management and train others in this task
 - solve problems relating to height, depth, breadth, dimension, direction and position in actual operational activity and virtual representation
 - understand implications of height, depth, breadth, dimension and position to actual operational activity and virtual representation.

Required knowledge and understanding:

- abilities of work teams
- accuracy and precision requirements
- information management
- legislation as it applies to project work
- OHS policies
- project management principles
- project management tools, techniques and methodologies
- project review procedures
- quality assurance principles
- relationships to universal locations
- relevant legislative, statutory and industry standards
- resource management processes
- risk analysis principles
- safe work practices

REQUIRED SKILLS AND KNOWLEDGE

- spatial information principles and their application
- SIS project contingencies
- spatial technologies
- use of spatial equipment for data capture and data set out.

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, the range statement and the Assessment Guidelines for this Training Package.

Overview of assessment

This unit of competency could be assessed on its own or in combination with other units relevant to the job function, for example units CPPSIS6003A Determine client spatial requirements, and CPPSIS6007A Design spatial information services project deliverables.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

A person who demonstrates competency in this unit must be able to provide evidence of:

- applying cost considerations
- assessing and acting upon contingencies
- developing qualitative and quantitative measurements for a project
- high-level communication and negotiation skills
- human resource management
- managing resource requirements
- managing risks and contingencies
- planning and setting targets
- understanding spatial project management.

Specific resources for assessment

Resource implications for assessment include access to:

- assessment instruments, including personal planner and assessment record book
- assignment instructions, work plans and schedules, policy documents and duty statements
- registered training provider of assessment services
- relevant guidelines, regulations and codes of practice
- suitable venue and equipment.

Access must be provided to appropriate learning and assessment support when required.

Where applicable, physical resources should include equipment modified for people with disabilities.

Context of assessment	Holistic: based on the performance criteria, evidence guide, range statement, and required skills and knowledge.
Method of assessment	Demonstrated over a period of time and observed by the assessor (or assessment team working together to conduct the assessment). Demonstrated competency in a range of situations, that may include customer/workplace interruptions and involvement in related activities normally experienced in the workplace. Obtained by observing activities in the field and reviewing induction information. If this is not practicable, observation in realistic simulated environments may be substituted.
Guidance information for assessment	Assessment requires that the clients' objectives and industry expectations are met. If the clients' objectives are narrowly defined or not representative of industry needs, it may be necessary to refer to portfolio case studies of a variety of SIS requirements to assess competency. Oral questioning or written assessment and hypothetical situations (scenarios) may be used to assess underpinning knowledge (in assessment situations where the candidate is offered a preference between oral questioning or written assessment, questions are to be identical). Supplementary evidence may be obtained from relevant authenticated correspondence from existing supervisors, team leaders or specialist training staff. All practical demonstration must adhere to the safety and environmental regulations relevant to each State or Territory. Where assessment is for the purpose of recognition (recognition of current competencies [RCC] or recognition of prior learning [RPL]), the evidence provided will need to be authenticated and show that it represents competency demonstrated over a period of time. In all cases where practical assessment is used it will be combined with targeted questioning to assess the underpinning knowledge. Assessment processes will be appropriate to the

language and literacy levels of the candidate and any cultural issues that may affect responses to the questions, and will reflect the requirements of the competency and the work being performed.

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 in the performance criteria is detailed below. Add any 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.

Spatial information services projects may include:

- administration (e.g. postcodes, suburbs, and federal and state electoral counties)
- analysis of environmental, land and geographic information
- asset management
- cartographic services
- civil engineering
- digital imagery
- electricity
- emergency services management
- environmental datasets
- geographic information systems
- integrated services - environmental, land and geographic related datasets
- land ownership tenure system
- local government
- location-based services
- global positioning
- mapping facilities
- site analysis
- survey marks
- sewerage
- telecommunications
- town planning
- utility services such as water
- water catchment.

Legislative requirements may include:

- confidentiality and privacy requirements
- compliance requirements with financial services
- equal employment opportunity (EEO)
- industrial relations and anti-discrimination
- OHS requirements.

Project plans may include:

- acquiring intellectual property

- acquisition strategies
 - evaluation criteria
 - financial management
 - human resource management
 - human resource training needs
 - milestones
 - performance indicators
 - project implementation
 - quality standards
 - return on investment
 - risk management.
- Organisational guidelines** may include:
- code of ethics
 - company policy
 - legislation relevant to the work or service function
 - manuals
 - OHS policies and procedures
 - personnel practices and guidelines outlining work roles and responsibilities.
- Stakeholders** may include:
- human resource personnel: internal or external
 - procurement agency: internal or external management.
- Contingencies** may include:
- adverse weather
 - equipment failure
 - contractual issues
 - human resource issues
 - legislative impact
 - stakeholder priorities
 - changes in plans
 - political influences.
- Cost control processes** may include:
- approval
 - communication and reporting
 - financial authorisation
 - financial delegation
 - invoice guidelines.
- Spatial technology** may include:
- data recording equipment
 - electronic theodolites
 - global positioning system units
 - personal computer-based digitising boards
 - photogrammetric instruments
 - total station
 - vehicles.
- Risk management processes**
- adhering to budget

may include:

- anticipating external influences
- contingency planning
- guidelines for the selection of contractors
- effective communication and consultation
- effective project management
- internal and external audit processes
- legislative adherence
- milestone review and evaluation
- realistic timelines
- sound OHS practices
- targeted activity.

Higher authority may include:

- client
- customer
- other personnel within the organisation, such as higher management.

Training may include:

- computer-based learning
- coaching or mentoring
- demonstration
- formal internal or external training session
- informal training session
- on-the-job instruction
- provision of learning opportunities
- self-paced learning
- structured feedback.

OHS may include:

- Australian standards
- development of site safety plan
- identification of potential hazards
- inspection of work sites
- training staff in OHS requirements
- use of equipment and signage.

Unit Sector(s)

Unit sector

Spatial information services