CPPSIS5033A Implement a spatial information services project plan

Release 1

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Modification History

Unit revised and not equivalent to CPPSIS5003A Implement a spatial information services project plan
Element structure, performance criteria, and critical aspects reviewed to reflect workplace requirements
Skills and knowledge requirements and the range statement updated

Unit Descriptor

This unit of competency specifies the outcomes required to implement a spatial information services (SIS) project plan. It requires well-developed communication skills and the ability to apply in substantial depth skills and knowledge to a wide variety of spatial contexts to meet project deliverables, often in a supervisory capacity. Functions would be carried out within organisational guidelines.

Application of the Unit

This unit of competency supports the application of organisational, sound communication, negotiation and problem-solving skills; the ability to demonstrate initiative and enterprise; 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 or geographic information systems (GIS).

Licensing/Regulatory Information

Licensing, legislative, regulatory and certification requirements may impact on this unit. Incorporate these requirements according to state, territory and federal legislation.

Pre-Requisites

Nil

Employability Skills Information

This unit contains employability skills.

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

1	Organise resources.	1.1	Tasks are reviewed to identify the nature of the **SIS project** and its requirements.
		1.2	Characteristics of the operating environment/site and any special equipment or resource requirements are identified.
		1.3	**Higher authority** endorsements are obtained where necessary to ensure resources and equipment are used according to organisational and **project objectives**.
		1.4	**Spatial technology** and material requirements are accessed according to the provided project plan.
		1.5	Equipment is checked to be operating effectively according to **manufacturer specifications**, relevant legislation and company policy.
2	Allocate work areas and activities.	2.1	Work is allocated and scheduled to be completed within the time available.
		2.2	Work allocation to individuals matches known **competency** and capacity to work within **organisational policy**.
		2.3	**Training** is provided to personnel to fill identified skill gaps and improve work performance.
		2.4	**OHS** issues are considered at all times.

3	Manage human resources.	3.1	Human resource availability is considered and planned for.
		3.2	Individual performance is measured against agreed criteria and *designated responsibilities* and actions are initiated to overcome shortcomings in performance.
		3.3	Agreed *communication processes* between project members, client and other stakeholders are implemented and maintained to ensure effective communication throughout the project life cycle.
4	Manage and monitor project.	4.1	*Project management mechanisms* are implemented to measure, record and report progress of activities in relation to the agreed schedule and plans.
		4.2	*Contingencies* are managed to ensure the project meets specifications.
		4.3	*Quality assurance* processes are implemented based on the project plan.
		4.4	Progress is reviewed throughout the project life cycle, with any agreed changes implemented to ensure consistency with project scope, objectives and *constraints*.
		4.5	*Financial management guidelines and processes* are implemented to monitor actual expenditure and control costs.
		4.6	Client relationships are maintained to ensure clarity of understanding of objectives and examine any potential conflict throughout the project life cycle.
		4.7	*Completion activities* are implemented to ensure final outcomes meet original project objectives.
5	Review project.	5.1	Review of project achievements against objectives is undertaken and reported to stakeholders.
		5.2	Clients are consulted to determine their level of satisfaction.
		5.3	Action to rectify problems in meeting client needs is

recommended and documented.

5.4   *Results* are documented and reported to stakeholders to assist in continuous improvement.

Required Skills and Knowledge

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

Required skills

- communication skills to:
  - consult effectively with clients and colleagues
  - impart knowledge and ideas through oral, written and visual means
- computer skills to complete business documentation
- initiative and enterprise skills to:
  - delegate duties
  - undertake day-to-day human resource management and business negotiation
- literacy skills to:
  - assess and use workplace information
  - read and write technical reports
  - research and evaluate
  - undertake financial planning
- numeracy skills to:
  - analyse errors
  - conduct image analysis
  - perform mental calculations
  - interpret and analyse statistics
  - record with accuracy and precision
  - undertake computations
- organisational skills to:
  - coordinate technical and human resource inputs to research activities
  - prioritise activities to meet contractual requirements
- project management skills
- quality assurance
- spatial skills to:
  - exercise precision and accuracy in relation to spatial and aspatial data design
  - archive and retrieve spatial data
  - manage and manipulate spatial data
  - manage files
- time management skills to complete spatial projects within designated timeframes

Required knowledge

- abilities and capabilities of work team
- business planning
- information management
- legislation as it applies to project work
- project management principles
- project management tools, techniques and methodologies
- quality assurance principles
- project review procedures
- safe work practices
- spatial information principles and their application
- SIS project contingencies
- spatial technologies

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 CPPSIS5034A Determine spatial data requirements, CPPSIS5038A Develop a complex spatial and aspatial database, CPPSIS5039A Produce spatial project deliverables, and CPPSIS5041A Monitor and control the spatial components of projects.
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: • managing spatial project activity on a day-to-day basis • managing contingencies, risk, quality and resource requirements • managing human resources on a day-to-day basis • providing advice and feedback effectively to management and attaining support for operational activity • working towards set targets • knowledge of spatial project requirements.
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

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.

SIS project 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
- GIS
- 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.

Higher authority may include:	• client • customer • other personnel within the organisation, such as higher management • other personnel within the project.
Project objectives may include:	• acquiring intellectual property • aims of project • evaluation criteria • milestones • performance indicators • project implementation • quality standards • return on investment • risk management. • targets.
Spatial technology may include:	• data recording equipment • electronic theodolites • geographic positioning system units • personal computer-based digitising boards • photogrammetric instruments • total station • vehicles.
Manufacturer specifications may include:	• electronic instructions • equipment specifications • operator manuals • printed product instructions and information • spatial database • warranty documents.
Competency refers to:	• skills and knowledge required to perform a vocational function in a consistent manner and to a degree that is acceptable to the workplace.
Organisational policy 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.
Training may include:	• computer-based learning • coaching or mentoring • demonstration • formal internal or external training session

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- 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.
Designated responsibilities may be:	• advised verbally • a written job description • electronically distributed.
Communication processes may include:	• electronic • meetings • reports • verbal • written.
Project management mechanisms may include:	• communication with stakeholders • control trigger mechanisms • dispute resolution guidelines • implementation of targets and schedules • key milestone adjustment • measurement and analysis of major variance and trends • monitoring outcomes • return on investment analysis.
Contingencies may include:	• adverse weather • human resource issues • equipment failure • contractual issues • legislative impact • stakeholder priorities • changes in plans • political influences.
Quality assurance may include:	• internal and external • product or service measurement against set criteria • standard verification • target monitoring.
Constraints may include:	• contractual arrangements • resource availability • time.
Financial management guidelines and processes may include:	• approval processes • communicate budgetary requirements to operational personnel • financial authorisation

	• financial delegation
	• invoice guidelines
	• reporting.
Completion activities may include:	• final audit
	• intellectual property management
	• reconciliation
	• settling of financial liabilities
	• transition of responsibility, ownership of project deliverables and products
	• transfer of product to client
	• warranty requirements.
Results may include:	• changes to knowledge
	• process instructions
	• suggestions for improvement
	• spatial data records
	• success and failure criteria
	• training programs.

Unit Sector(s)

Surveying and spatial information services

Custom Content Section

Not applicable.