Australian Government

Department of Education, Employment and Workplace Relations

CPPSIS2002A Assist in the collection of basic spatial data

Release: 1

CPPSIS2002A Assist in the collection of basic spatial data

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit of competency specifies the outcomes required to assist in spatial data collection. It requires the ability to perform a range of routine and basic activities involved in the use of information technology and equipment within a spatial information handling framework. Functions would be carried out under direct supervision and within organisational guidelines.

Application of the Unit

Application of the unit

This unit of competency supports the application of teamwork, verbal and written workplace communication skills, and the use of spatial information services (SIS) technology. The skills and knowledge acquired upon completion of this unit would support the needs of new employees in the SIS industry sector in positions such as field hands, data collection assistants and administrative assistants.

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 Prepare to collect basic spatial data.	1.1 Requirements of the task are clarified with ***appropriate persons***.
	1.2 ***Equipment***, ***resources and SIS technologies*** are selected according to task requirements.
	1.3 Equipment is checked to ensure that it is in safe working order.
	1.4 Skills and knowledge are updated to accommodate changes in work environment.
2 Assist in gathering basic spatial data.	2.1 Data and ***attributes*** are collected using methodologies detailed in the provided ***data collection plan***.
	2.2 Any discrepancies between specifications, standards and actual activities are identified, recorded and reported.
	2.3 ***Metadata*** is documented according to accepted industry standards.
	2.4 Operational, ***administrative and legal requirements*** for data collection are complied with and recorded.
	2.5 ***OHS requirements*** are planned for and adhered to.
3 Use equipment under supervision.	3.1 Appropriate equipment and SIS technologies are operated according to the task requirements and ***manufacturer specifications***.
	3.2 All safety requirements are adhered to.
	3.3 Data is recorded correctly and securely according to manufacturer specifications and operational guidelines.
4 Maintain equipment under supervision.	4.1 ***Operational maintenance*** of equipment is undertaken according to organisational guidelines.
	4.2 ***Contingencies*** that may affect equipment usage are reported.
	4.3 Unsafe or faulty equipment or SIS technologies is reported and referred for repair.
5 Assist in finalising the data collection process.	5.1 Tools, resources and equipment, and SIS technologies are stored safely in appropriate locations and according to manufacturer specifications.
	5.2 All data and documentation are stored according to ***organisational 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
- communicate in a clear and concise manner in both written and verbal modes
- computer skills to perform basic data collection
- literacy skills to:
  - assess and use workplace information
  - interpret and understand basic legal, financial and procedural requirements
  - process workplace documentation
  - read and record data
- numeracy skills to:
  - accurately record and collate
  - undertake basic computations
- organisational skills to prioritise daily activities
- spatial skills to:
  - apply appreciation of height, depth, breadth, dimension and position to basic virtual representation
  - apply understanding of height, depth, breadth, dimension and position to actual operational activity (basic)
  - collect spatial and aspatial data using electronic equipment and SIS technologies
- use a range of equipment in the field safely, accurately and as required for the task
- work effectively as part of a team.

Required knowledge and understanding:

- basic data collection methods using electronic equipment
- basic characteristics, capabilities and limitations of tools, technology and equipment used
- basic organisational policies and guidelines, such as OHS guidelines
- equipment and SIS technologies, capabilities, limitations and potential problems.

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 CPPSIS2003A Assist in the storage and retrieval of spatial data, and CPPSIS2007A Use information technology for spatial information services activity.

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 a defined range of skills
- applying known solutions to a limited range of predictable problems
- assessing and recording information from varied sources
- demonstrating basic operational knowledge in a moderate range of areas
- performing a range of tasks where choice between a limited range of options is required
- taking limited responsibility for own outputs in work and learning.

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 spatial information services 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.

Appropriate persons may include:

- assessors
- colleagues
- managers
- supervisors
- trainers.

Equipment, ***resources and SIS technologies*** may include:

- data logger or other mobile computing device
- data recording equipment
- digital imagery
- handheld global positioning system (GPS)
- maps (digital or hard copy)
- measuring instruments
- non-navigational aids relevant to duties, including:
  - compass
  - clinometer
  - distance measuring wheel
- personal digital assistant
- personal computer-based digitising boards
- tools
- ultra high frequency (UHF) radio.

Attributes are properties associated with a dataset and may include:

- condition
- date
- feature code
- size
- type.

Data collection plan may include:

- data dogging
- digitising theodolite
- GPS scanning
- photogrammetry
- remote sensing
- sonar
- survey
- total station.

Metadata may include:

- summarised information about a spatial dataset that describes its characteristics, including:
  - availability
  - conditions of use
  - coordinate system
  - currency
  - date of acquisition
  - quality
  - source
  - spatial data acquisition methodologies
  - version control.

Administrative and legal requirements may include:

- Australian standards, quality assurance and certification requirements
- award and enterprise agreements
- company OHS guidelines
- licensing arrangements
- relevant codes of practice
- relevant state, territory or federal legislation that affects organisational operations, including:
  - anti-discrimination and diversity
  - equal employment opportunity (EEO)
  - industrial relations.

OHS requirements may include:

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

Manufacturer specifications may be found in:

- electronic format
- equipment specifications
- online assistance or digital support documentation
- operator manuals
- printed product instructions and information
- spatial database
- warranty documents.

Operational maintenance tasks may include:

- adjusting
- cleaning
- lubricating
- tightening
- maintaining battery

	• running operational tests • simple repairs.
Contingencies may include:	• adverse weather • equipment failure • SIS technology problems.
Organisational guidelines may include:	• code of ethics • company policies and procedures • legislation relevant to the work or service function • manuals • OHS policies and procedures • personnel practices and guidelines outlining work roles and responsibilities.

Unit Sector(s)

Unit sector	Spatial information services