



Australian Government

Department of Education, Employment and Workplace Relations

PSPSCI601A Manage the provision of high-level scientific technical support

Revision Number: 3

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Modification History

Release	TP Version	Comments
3	PSP12V1	Unit descriptor edited.
2	PSP04V4.2.	Layout adjusted. No changes to content.
1	PSP04V4.1	Primary release.

Unit Descriptor

This unit covers the provision of high-level technical support within a broad area of expertise at an experienced, self-directed level with responsibility for experimental, survey, sampling and/or analytical functions. It includes determining and managing high-level technical duties, managing the collection and recording of information, and analysing and reporting data. In practice, management of high-level scientific technical support overlaps with other generalist or specialist work activities such as acting ethically, applying government systems, providing leadership, managing resources, managing risk, managing workplace safety. No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement.

Application of the Unit

Not applicable.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements are the essential outcomes of the unit of competency. Together, performance criteria specify the requirements for competent performance. Text in ***bold italics*** is explained in the Range Statement following.

Elements and Performance Criteria

ELEMENT

PERFORMANCE CRITERIA

1. Determine and manage high-level technical duties

- 1.1 Outputs are determined within a broad area of technical expertise and **technical duties** and responsibilities are determined in accordance with organisational requirements.
- 1.2 **Processes, resources**, timelines and **equipment** requirements are determined and technical duties are organised and managed in accordance with organisational and task requirements.
- 1.3 Risk management strategies, occupational health and safety, environmental and **other legislative requirements** are determined and explained to other staff as necessary, in a manner suited to their needs and levels of understanding and experience.
- 1.4 The organisation and preparation of resources and equipment are managed in accordance with organisational and task requirements.

2. Manage the collection and recording of information

- 2.1 Technical leadership is provided and **individuals** are influenced to meet required outputs in accordance with organisational requirements.
- 2.2 Technical and management duties are carried out independently in accordance with organisational requirements.
- 2.3 Collection and recording of information are managed in accordance with identified processes and timelines.
- 2.4 Information is monitored and contingencies are dealt with in accordance with organisational and task requirements.
- 2.5 The use and maintenance of resources and equipment are managed in accordance with organisational and task requirements.
- 2.6 Risk management strategies, occupational health and safety, environmental and other legislative requirements are enforced in accordance with organisational requirements.

3. Analyse and report data

- 3.1 Data input and records maintenance are monitored in accordance with organisational requirements.
- 3.2 Data is analysed and **irregularities** are dealt with in accordance with organisational and task requirements.
- 3.3 Technical reports and **high-level correspondence** are prepared and presented in accordance with organisational and task requirements.

Required Skills and Knowledge

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

Skill requirements

Look for evidence that confirms skills in:

- technical leadership to influence others to meet required outputs
- using a range of communication styles to suit different audiences and purposes
- responding to diversity, including gender and disability
- reading formal documents such as legislation and instructions and applying them in the workplace
- analysing/manipulating mathematical data and problem solving
- using technology for word processing and data management
- writing technical reports and ministerial correspondence requiring precision of expression
- operating machinery and experimental equipment
- applying occupational health and safety and environmental requirements related to working in a scientific/technological research environment

Knowledge requirements

Look for evidence that confirms knowledge and understanding of:

- experimental procedures and scientific methods
- analytical techniques/statistical analysis
- the scientific area (broad understanding)
- legislation, public sector standards and organisational code of practice as they relate to work in a scientific research/technical environment
- standard operating procedures and/or work instructions
- leadership of others in a scientific/technical environment
- occupational health and safety, environmental protection and other public sector legislation
- technical support work relevant to specialist area (extensive knowledge)

Evidence Guide

The Evidence Guide specifies the evidence required to demonstrate achievement in the unit of competency as a whole. It must be read in conjunction with the Unit descriptor, Performance Criteria, the Range Statement and the Assessment Guidelines for the Public Sector Training Package.

Units to be assessed together

- *Pre-requisite* units that must be achieved prior to this unit: *Nil*
- *Co-requisite* units that must be assessed with this unit: *Nil*
- *Co-assessed units* that may be assessed with this unit to increase the efficiency and realism of the assessment process include, but are not limited to:
 - PSPETHC601B Maintain and enhance confidence in public service
 - PSPGOV601B Apply government systems
 - PSPLEGN601B Manage compliance with legislation in the public sector
 - PSPMNGT602B Manage resources
 - PSPMNGT608B Manage risk
 - PSPOHS602A Manage workplace safety

Overview of evidence requirements

In addition to integrated demonstration of the elements and their related performance criteria, look for evidence that confirms:

- the knowledge requirements of this unit
- the skill requirements of this unit
- application of the Employability Skills as they relate to this unit (see Employability Summaries in Qualifications Framework)
- management of the provision of high-level scientific technical support within a broad area of expertise at an experienced, self-directed level, in a range of (3 or more) contexts such as experimental, survey, sampling and/or analytical tasks (or occasions, over time)

Resources required to carry out assessment

These resources include:

- legislation, procedures, guidelines and protocols
- operating procedures/work instructions
- industry standards
- scientific/technological equipment and machinery related to the research environment
- personal protective equipment
- case studies and workplace scenarios to capture the range of situations likely to be encountered when managing the provision of high-level scientific technical support

Where and how to assess evidence

Valid assessment of this unit requires:

- a workplace environment or one that closely resembles normal work practice and replicates the range of conditions likely to be encountered when managing the provision of high-level scientific technical support, including coping with difficulties, irregularities and breakdowns in routine
- management of the provision of high-level scientific technical support within a broad area of expertise at an experienced, self-directed level, in a range of (3 or more) contexts such as experimental, survey, sampling and/or analytical tasks (or occasions, over time)

Assessment methods should reflect workplace demands, such as literacy, and the needs of particular groups, such as:

- people with disabilities
- people from culturally and linguistically diverse backgrounds
- Aboriginal and Torres Strait Islander people
- women
- young people
- older people
- people in rural and remote locations

Assessment methods suitable for valid and reliable assessment of this competency may include, but are not limited to, a combination of 2 or more of:

- demonstration
- observation
- portfolios
- projects
- questioning
- authenticated evidence from the workplace and/or training courses

For consistency of assessment

Evidence must be gathered over time in a range of contexts to ensure the person can achieve the unit outcome and apply the competency in different situations or environments

Range Statement

The Range Statement provides information about the context in which the unit of competency is carried out. The variables cater for differences between States and Territories and the Commonwealth, and between organisations and workplaces. They allow for different work requirements, work practices and knowledge. The Range Statement also provides a focus for assessment. It relates to the unit as a whole. Text in ***bold italics*** in the Performance Criteria is explained here.

Technical duties may include

- surveys
- sampling
- experiments
- trials
- tests
- assays
- surveillance
- collecting specimens
- inspections
- identification of plants or animals
- identification of pests
- operation, calibration and maintenance of experimental equipment
- diagnostic processes
- producing specimen images

Processes may include:

- experimental processes
- observation
- field trials

Resources may include:

- design specifications
- technical manuals
- componentry
- radioactive samples
- specimens
- plants
- seeds
- chemicals
- personal protective equipment

Equipment may include:

- prototypes
- test rigs
- tools
- diagnostic instruments
- laboratory equipment

- Other legislative requirements*** may include:
- experimental equipment
 - farm equipment
 - quarantine or protection requirements
 - copyright and intellectual property legislation
 - Australian standards
- Individuals*** may include:
- other technical staff
 - supervised staff
 - contract workers
 - super-ordinates
 - research officers
 - farmers
- Irregularities*** may be dealt with by:
- problem solving
 - checking source information
 - checking data input
 - repeating tests/trial measurements
 - referring problem to other staff
- High-level correspondence*** may include:
- ministerials
 - briefing notes
 - discussion papers

Unit Sector(s)

Not applicable.

Competency field

Government Science & Technology.