



Australian Government

MSL924002 Use laboratory application software

Release: 1

MSL924002 Use laboratory application software

Modification History

Release 1. Supersedes and is equivalent to MSL924002A Use laboratory application software

Application

This unit of competency covers the ability to use and apply computer software in the laboratory, field and/or production plants for analysis and reporting.

This unit of competency is applicable to technical officers and laboratory technicians in all industry sectors. It describes the application and use of software packages in the context of a laboratory or fieldwork. Typically this software would be for the storage, retrieval, analysis and display of information. There is no expectation that candidates would be able to customise the software to meet specific needs.

While no specific licensing or certification requirements apply to this unit at the time of publication, laboratory operations are governed by relevant legislation, regulations and/or external accreditation requirements. Local requirements should be checked.

Pre-requisite Unit

Nil

Competency Field

Data

Unit Sector

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1 Access application software

- 1.1 Identify software required for the task
- 1.2 Open software from a personal computer or network terminal
- 1.3 Use information sources to locate details of software features and instructions for its use

2 Use software for

- 2.1 Input a range of scientific data into a computing system

	specified purposes	2.2	Conduct searches for the retrieval of required data
		2.3	Use application features for efficient computation
		2.4	Construct data sets and databases for numerical and graphical analyses
3	Produce reports of retrieved data and/or processed data	3.1	Analyse data using features of the software package
		3.2	Select options for constructing data reports
		3.3	Print the results of data analyses using features of the software package
		3.4	Integrate data from diverse application software units in a report
		3.5	Report the outcomes and rationale for database searches where appropriate
		3.6	Reference data sources according to the style requirements of the workplace
4	Perform simple record housekeeping	4.1	Maintain archived data according to workplace standard procedures
		4.2	Maintain hard copy data according to workplace standard procedures
		4.3	Apply approved antivirus software and standard quarantine procedures

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different 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.

Standards, codes of practice, workplace standard procedures

Where reference is made to Australian/international standards, industry codes of practice or workplace standard procedures, the latest version must be used

Information sources

Information sources include, but are not limited to, one or more of:

- printed and/or online manuals of workplace standard instructions
- printed and/or online manuals for hardware and software
- on-screen instructions embedded in the software
- printed and/or online training materials that orient software to workplace needs
- online networks and communities of practice

Software packages

Software packages include:

- common applications, such as word processing, spreadsheets and databases
- graphical and statistical analysis applications
- database and laboratory information management systems

Work health and safety (WHS) and environmental management requirements

WHS and environmental management requirements include:

- complying with WHS and environmental management requirements at all times, which may be imposed through state/territory or federal legislation. These requirements must not be compromised at any time
- applying standard precautions relating to the potentially hazardous nature of samples
- accessing and applying current industry understanding of infection control issued by the National Health and Medical Research Council (NHMRC) and State and Territory Departments of Health, where relevant

Unit Mapping Information

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Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=5c63a03b-4a6b-4ae5-9560-1e3c5f462baa>

Assessment Requirements for MSL924002 Use laboratory application software

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Performance Evidence

Evidence of competence in this unit must satisfy all of the requirements of the elements and performance criteria, and include demonstration of:

- selecting the most appropriate software package for the task from the suite of software applications available
- using software for the analysis, reporting and management of laboratory and field data and information, such as quality control and instrument performance characteristics
- using software application features and instructions to input, save, analyse, sort, retrieve and display records and data
- using in-house software manuals to augment skills and solve operational problems
- using virus scanning software to protect in-house software and data.

Knowledge Evidence

Must provide evidence that demonstrates knowledge of:

- terminology associated with the software packages used in job role
- basic knowledge of the types of spreadsheet, database and data analysis packages that are available
- application of specific software package features to laboratory tasks relevant to job role
- relationship between the protocol for data input and file storage of the data
- general file and record maintenance
- work health and safety (WHS) and environment requirements.

Assessment Conditions

- Judgement of competence must be based on holistic assessment of the evidence. Assessment methods must confirm consistency of performance over time, rather than a single assessment event.
- This unit of competency is to be assessed in the workplace or a simulated workplace environment. A simulated workplace environment must reflect realistic operational workplace conditions that cover all aspects of workplace performance, including the environment, task skills, task management skills, contingency management skills and job role environment skills.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.

- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Knowledge evidence may be collected concurrently with performance evidence or through an independent process, such as workbooks, written assessments or interviews (provided a record is kept in each case).
- This unit of competency may be assessed with:
 - MSL925001 Analyse data and report results
 - relevant MSL974000 series units of competency
 - relevant MSL975000 series units of competency
- Holistic assessment methods include:
 - review of analysis tasks linking test results to the generation of reports by the candidate
 - review of simple statistical and/or graphical analysis of quality control data completed by the candidate.
- Access is required to all instruments, equipment, materials, workplace documentation, procedures and specifications associated with this unit, including, but not limited to:
 - a computer network, personal computer or laptop
 - software packages that cover databases, spreadsheets, statistical analysis and simple graphics output
 - input and output data.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.
- The assessor must demonstrate both technical competency and currency.
- Technical competence can be demonstrated through:
 - relevant VET or other qualification/Statement of Attainment AND/OR
 - relevant workplace experience.
- Currency can be demonstrated through:
 - performing the competency being assessed as part of current employment OR
 - having consulted with a laboratory about performing the competency being assessed within the last twelve months

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