



Australian Government

Department of Education, Employment and Workplace Relations

PMLORG301A Plan and conduct laboratory/field work

Release: 1

PMLORG301A Plan and conduct laboratory/field work

Modification History

Unit Descriptor

This unit of competency covers the ability to plan and complete tasks individually or in a team context. The tasks involve established routines and procedures using allocated resources with access to readily available guidelines and advice. Work plans may need to be modified with supervisor agreement to suit changing conditions and priorities.

This unit of competency is based on, and equivalent to, the units PMLORG300A Follow established work plan and PMLTEAM300A Work efficiently as part of a team in PML99.

This unit of competency has no prerequisites.

This unit of competency is applicable to laboratory or technical assistants/officers and instrument operators working in all industry sectors covered by this Training Package.

Industry representatives have provided case studies to illustrate the practical application of this unit of competency and to show its relevance in a workplace setting. These are found at the end of this unit of competency under the section This competency in practice.

Application of the Unit

Licensing/Regulatory Information

Pre-Requisites

Employability Skills Information

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance Criteria describe the level of performance required to demonstrate achievement of the element.

Elements and Performance Criteria

Elements and Performance Criteria

Element	Performance Criteria
1 Plan and organise daily work activities	<ul style="list-style-type: none">1.1 Clarify allocated work activities and required resources if necessary1.2 Prioritise work activities as directed1.3 Break down work activities into small achievable components and efficient sequences1.4 Review work plan in response to new information, urgent requests, changed situations or instructions from appropriate personnel1.5 Update work plan and communicate changes to appropriate personnel
2 Complete allocated work	<ul style="list-style-type: none">2.1 Locate relevant workplace procedures for required tasks2.2 Undertake task(s) following prescribed and routine work related sequences2.3 Seek assistance from relevant personnel when difficulties cannot be handled2.4 Record completion of activities to confirm outputs in accordance with plan
3 Identify and resolve work problems	<ul style="list-style-type: none">3.1 Recognise problems or opportunities for improved work performance3.2 Apply agreed problem solving strategies to consider possible causes and solutions3.3 Identify and access appropriate sources of help3.4 Consider available alternatives and keep them open before agreeing on the most appropriate action.
4 Work in a team environment	<ul style="list-style-type: none">4.1 Cooperate with team members to negotiate and achieve agreed outcomes, timelines and priorities4.2 Recognise personal abilities and limitations when undertaking team tasks

- 4.3 Confirm personal role and responsibility within the team for particular outputs
 - 4.4 Demonstrate sensitivity to the diversity of other team members' backgrounds and beliefs
- 5 Update knowledge and skills as required
 - 5.1 Recognise own strengths and weaknesses and take advantage of skill development opportunities.

Required Skills and Knowledge

Evidence Guide

The Evidence Guide describes the underpinning knowledge and skills that must be demonstrated to prove competence.

Critical aspects of competency

Competency must be demonstrated in the ability to perform consistently at the required standard. In particular, assessors should look to see that the candidate:

- conducts work based on ethical values and principles

- clarifies tasks and recognises resource needs

- follows relevant procedures

- recognises potential disruptions or changed circumstances and modifies work plan in conjunction with relevant personnel

- compensates for a variety of working environments (indoor, outdoor and night)

- seeks assistance from relevant personnel when difficulties arise

- achieves quality outcomes within timelines

- works effectively with team members who may have diverse work styles, cultures and perspectives

- promotes cooperation and good relations in the team.

Underpinning knowledge

Competency includes the ability to apply and explain:

- enterprise procedures covering:

 - customer service

 - quality

 - OHS and environmental legislative requirements

 - technical work that the candidate routinely performs

 - workplace agreements and employment conditions, such as:

 - workers compensation

 - industrial awards enterprise agreements

 - equal employment opportunity

 - anti discrimination and anti-harassment

 - ethical background relevant to the nature of the work, such as:

 - use of animals for research

 - genetic modification, gene therapy, cloning, stem cells

 - in vitro fertilisation

 - forensic testing of populations

 - importance of commercial confidentiality

 - problem solving strategies

 - interpersonal communication and conflict resolution techniques

 - relevant health, safety and environment requirements.

Assessment context and methods

This unit of competency is to be assessed in the workplace or simulated workplace environment.

The following assessment methods are suggested:

- review of a flowchart prepared by the candidate to show efficient sequencing of tasks

- observation of the candidate performing a range of technical tasks over sufficient time to demonstrate their handling of a variety of contingencies

review of documents detailing completed tasks, such as completed job cards, a report or suggestions for quality improvement

feedback from peers and team members

feedback from supervisors

written or oral questions to partly assess the candidate's ability to handle a range of contingencies and working in a team environment.

In all cases, practical assessment should be supported by questions to assess underpinning knowledge and those aspects of competency which are difficult to assess directly. Questioning techniques should suit the language and literacy levels of the candidate.

Interdependent assessment of unit

This unit of competency may be assessed with:

PMLOHS302A Participate in laboratory/field workplace safety

PMLCOM300B Communicate with other people

technical units related to the tasks undertaken.

Resource implications

Resources may include:

enterprise procedures, equipment and materials for relevant technical tasks.

This competency in practice

Manufacturing

A plastic processing plant had to halt production because of a suspect raw material. The plant manager immediately requested the polymer testing laboratory to test and identify all batches of polypropylene additives and colouring agents. The laboratory team of three assistants and one technical officer allocated the workload amongst themselves to conduct the twelve different tests within a period of four hours to identify the 'out of specification' materials and report them to the production supervisor. All laboratory assistants had to reschedule their workplan, perform the required tests and assist each other to solve the production problem.

Biomedical

As part of a routine sequence, a technical officer is required to perform a series of tasks, including the calibration of instruments required for testing of blood samples. These tasks are to be completed within a specified timeframe to meet the output requirements of the enterprise. During the calibration of one of the instruments, the technician experiences difficulties that required expert technical assistance. The problem is referred to the appropriate person and is quickly resolved. Consequently, the officer is able to complete all necessary tasks within the prescribed timeframe and the required output is maintained.

Food processing

Each of the technical assistants working in the laboratory of a food processing company was dedicated to performing specific analyses. As a result, they often alternated between periods of inactivity and excessive workload (the latter case had the potential to compromise their health and safety and the accuracy of their food analyses). One of the contributing factors to the periods of intense activity was the need to quickly prepare standard solutions and reagents. The team discussed this problem and agreed that while it was not appropriate for each assistant to become competent to perform every analytical procedure, it was feasible for each person to be able to prepare solutions and reagents used by others. The team developed a central register in which impending shortages of these materials was noted. Each assistant referred to this register when no other work was due and prepared the materials on a 'first in, first out' basis unless a task was given a priority rating. The team found that this strategy more evenly distributed the workload over their shift, improved safety in the laboratory and reduced the risk of error.

Key Competencies

The seven key competencies represent generic skills considered for effective work participation. The bracketed numbering against each of the key competencies indicates the performance level required in this unit. These are stand-alone levels and do not correspond to levels in the Australian Qualifications Framework (AQF).

Level (1) represents the competence to undertake tasks effectively

Level (2) represents the competence to manage tasks

Level (3) represents the competence to use concepts for evaluating and reshaping tasks.

Collecting, analysing and organising information	Communic ating ideas and information	Planning and organising activities	Working with others and in teams	Using mathematic al ideas and techniques	Solving problems	Using technology
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Level 1	Level 1	Level 2	Level 2	Level 1	Level 1	Level 1
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Range Statement

The range of variables relates to the unit of competency as a whole. It allows for different work environments and situations that will affect performance.

Where reference is made to industry Codes of Practice, and/or Australian/international standards, it is expected the latest version will be used.

All work is performed ethically and professionally and includes:

following enterprise policy and procedures, regulations and legislation

behaving honestly and openly

respecting others and treating them with courtesy and impartiality

working diligently and responsibly

ensuring confidentiality of information, including client identification and test results

ensuring proprietary rights, intellectual property and copyright are protected

clarifying personal values and ethics and analysing how they impinge on actions in the workplace.

Workplace activities may include but are not limited to performing:

set up and pre-use checks of laboratory equipment

calibration status checks

sampling and testing following standard procedures

maintenance and cleaning tasks.

Workplace procedures may include:

standard operating procedures SOPs

job cards, batch cards, production schedules

job descriptions

methods, recipes, procedures and protocols.

Problem solving may include:

accessing relevant documentation

identifying inputs and outputs

sequencing a process

identifying and rectifying a problem step

obtaining timely help

implementing preventative strategies wherever possible.

Each team member assists the rest of the team to organise and manage its workload. The team may:

be ongoing with responsibility for particular services or functions, or project based

have a mixture of full and part-time employees and contractors, laboratory, construction and production personnel

be separated by distance and work at sites outside laboratory facilities.

The team operate within:

small, medium and large contexts

internal and external environments

enterprise guidelines covering access and equity principles and practices, licensing

requirements, industrial awards, enterprise bargaining agreements, Codes of Practice

agreed responsibility and accountability requirements

appropriate goals, objectives

given resource parameters.

The work tasks of individual team members will vary according to the size of enterprise, the scope of the laboratory and their level of responsibility.

The team may use a variety of strategies to maintain work flow:

- communicating critical events on shift
- recognising shortages in reagents and problems with equipment
- communicating quality breakdowns
- recognising urgent and abnormal results to be processed
- communicating and behaving in a courteous manner
- being punctual.

Health, safety and environment

All operations to which this unit applies are subject to stringent health, safety and environmental (HSE) requirements, which may be imposed through State or Federal legislation, and these must not be compromised at any time. Where there is an apparent conflict between performance criteria and HSE requirements, the HSE requirements take precedence.

All operations assume the potentially hazardous nature of samples and require standard precautions to be applied. Users should access and apply current industry understanding of infection control issued by the National Health and Medical Research Council and State and Territory Departments of Health. All operations are performed in accordance with standard operating procedures.

Unit Sector(s)