

PML20104 – Certificate II in Sampling and Testing

Summary of Competency Units

PMLDATA200A - Process and interpret data

This unit covers the ability to record and store data, perform basic calculations of scientific quantities and present information in tables and graphs. The unit requires personnel to solve predictable problems using clear information or known solutions. Where alternatives exist, they are limited or apparent.

Status Core

Elements

- Record and check data
- Calculate simple scientific quantities
- Present data in tables, charts and graphs
- Store and retrieve data

Prerequisites:

This unit of competency has no prerequisites.

PMLOHS302A - Participate in laboratory/field workplace safety

This unit covers the ability to apply enterprise OHS policies and procedures dealing with the identification and control of hazards, working safely at all times, emergency response and contributing to the maintenance of workplace safety. It is expected that personnel will be provided with clear directions, information, training and appropriate supervision. Responses are restricted to a 'first response' approach, including the notification of appropriate enterprise personnel.

Status Core

Elements

- Identify, control and report OHS and environmental hazards
- Conduct work safely
- Follow incident and emergency response procedures
- Contribute to OHS in the workplace

Prerequisites:

This unit of competency has no prerequisites.

PMLORG200A - Work within a laboratory/field workplace (induction)

This unit covers the induction of an employee into scientific/technical work within an enterprise.

Status Core

Elements

- Work within enterprise structure and culture
- Work in accordance with workplace agreements and/or legislative requirements
- Provide scientific/technical support
- Organise daily work efficiently
- Accept responsibility for quality of own work
- Identify own learning needs

Prerequisites:

This unit of competency has no prerequisites.

PMLCOM300B - Communicate with other people

This unit covers the ability to receive and pass on written and oral messages, provide relevant information in response to requests within timelines and demonstrate effective interpersonal skills.

Status Elective

Elements

- Receive and act upon instructions
- Receive and convey messages
- Demonstrate appropriate interpersonal skills
- Provide appropriate information

Prerequisites:

This unit of competency has no prerequisites.

PMLMAIN300B - Maintain the laboratory fit for purpose

This unit covers the general cleaning of work surfaces, cleaning and storage of equipment and the monitoring of laboratory stocks under direct supervision.

Status Elective

Elements

- Clean work preparation areas
- Clean and store equipment
- Monitor stocks of materials and equipment
- Maintain a safe work environment

Prerequisites:

This unit of competency has no prerequisites.

PMLOHS301B - Work safely with instruments that emit ionising radiation

This unit covers the ability to safely store, transport and operate instruments that emit ionising radiation following established safe work practices and in accordance with licensing requirements. Examples include use of process control instrumentation, such as fluid level gauges using radioactive sources, on-site non-destructive testing of weldments using X-ray and gamma ray sources and density testing of asphaltic concrete.

Status Elective

Elements

- Store instruments safely and securely
- Transport instruments safely and securely
- Use instruments safely and maintain security
- Monitor radiation levels
- Maintain records
- Perform emergency procedures

Prerequisites:

This unit of competency has no prerequisites.

PMLORG301A - Plan and conduct laboratory/field work

This unit 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.

Status Elective

Elements

- Plan and organise daily work activities
- Complete allocated work
- Identify and resolve work problems
- Work in a team environment
- Update knowledge and skills as required

Prerequisites:

This unit of competency has no prerequisites.

PMLQUAL300B - Contribute to the achievement of quality objectives

This unit covers the development of a working knowledge of quality principles and their application in laboratory/field work.

Status Elective

Elements

- Apply quality control procedures
- Contribute to quality improvements
- Maintain commitment to enterprise quality standards in own work
- Assist in maintaining customer relationships
- Update knowledge and skills as required

Prerequisites:

This unit of competency has no prerequisites.

PMLSAMP200A - Collect routine site samples

This unit covers the ability to collect samples at field or production sites using specified equipment and standard or routine procedures.

Status Elective

Elements

- Prepare for sampling
- Conduct sampling
- Finalise sampling
- Maintain a safe work environment

Prerequisites:

This unit of competency has no prerequisites.

PMLSAMP201A - Handle and transport samples or equipment

This unit covers the ability to pick up and transport samples or test/calibration equipment in accordance with enterprise procedures designed to ensure the integrity of subsequent test results. The person transporting the items is not necessarily responsible for sampling or testing. This unit does not cover the ability to handle and transport animals as might be defined under prevailing animal care and ethics legislation and practices.

Status Elective

Elements

- Prepare for pickup
- Pick up and transport items
- Maintain transport equipment
- Maintain a safe work environment

Prerequisites:

This unit of competency has no prerequisites.

PMLSAMP302A - Receive and prepare samples for testing

This unit covers the ability to log samples, check sample documentation, schedule and prepare a range of samples for testing. All operations are performed in accordance with standard operating procedures (SOPs). This unit does not include testing, tissue processing or similar techniques.

Status Elective

Elements

- Log samples
- Address customer service issues
- Prepare samples for testing
- Distribute samples
- Maintain a safe work area and environment

Prerequisites:

This unit of competency has no prerequisites.

PMLSCI G300B - Operate basic handblowing equipment

This unit covers the ability to operate handblowing equipment to perform basic glasswork. Personnel may be less experienced workers working under the guidance of an experienced scientific glassblower

Status Elective

Elements

- Prepare for handblowing operations
- Follow sequence of operations for glasswork procedure to be performed
- Use annealing equipment
- Maintain a safe work environment
- Maintain records

Prerequisites:

This unit of competency has no prerequisites.

PMLSCIG301B - Repair glass apparatus using simple glassblowing equipment

This unit covers the ability to perform basic repairs to glass apparatus using simple glassblowing equipment. It includes the ability to assess the economics of salvage and to follow a procedure of disassembly/assembly of the apparatus in accordance with specifications

Status Elective

Elements

- Prepare for repair operations
- Repair apparatus
- Operate annealing equipment
- Maintain a safe work environment
- Maintain records

Prerequisites:

This unit of competency has no prerequisites.

PMLTEST200A - Conduct routine site measurements

This unit covers the ability to make direct measurements using enterprise procedures and equipment calibrated by others. Measurements will be straightforward and involve a minimal number of steps, take a short time and have easily recognised control limits.

Status Elective

Elements

- Prepare for measurement(s)
- Perform measurement(s)
- Finalise measurements
- Maintain a safe work environment

Prerequisites:

This unit of competency has no prerequisites.

PMLTEST300B - Perform basic tests

This unit covers the ability to perform tests using standard methods and with access to readily available advice. Personnel are required to demonstrate close attention to the accuracy and precision of measurements and the data obtained. In general, they do not calibrate equipment and make only limited adjustments to the controls. The unit of competency does not cover interpretation or analysis of results or troubleshooting equipment problems.

Status Elective

Elements

- Interpret test requirements
- Prepare sample
- Check equipment before use
- Perform tests on samples
- Maintain a safe work environment

Prerequisites:

This unit of competency has no prerequisites.

PMLTEST303B - Prepare working solutions

This unit covers the ability to prepare working solutions and to check that existing stocks are suitable for use. This unit assumes that calculations of quantities, choice of reagent grades and required dilutions will be specified by the supervisor.

Status Elective

Elements

- Safely use laboratory chemicals, glassware and equipment
- Make up working solutions
- Check existing stock of solutions

Prerequisites:

This unit of competency has no prerequisites.

PMLTEST304B - Prepare culture media

This unit covers the ability to prepare culture media free of contamination required and facilitate optimal growth of organisms and cells. It also includes the ability to organise the materials, equipment and work environment and follow standard methods.

Status Elective

Elements

- Prepare culture media
- Sterilise media
- Pour, label and store media
- Perform quality control checks
- Maintain work area and equipment to prevent cross-infection and contamination

Prerequisites:

This unit of competency has no prerequisites.

PMLTEST305B - Perform aseptic techniques

This unit covers the ability to perform aseptic techniques to maintain the integrity of both the sample source and the sample. It applies to sampling techniques in tissue culture and to generic microbiological procedures.

Status Elective

Elements

- Prepare for aseptic sampling or transfer
- Transfer materials aseptically
- Maintain work area and equipment to prevent cross-infection and contamination

Prerequisites:

This unit of competency has no prerequisites.

PMLTEST306B - Assist with fieldwork

This unit describes the ability to perform tasks associated with organisation of fieldwork, field surveys and field camp operations. It also covers basic field survival skills and collection of samples in the field. This unit of competency does not include gaining clearance for animal trapping, tagging, keeping or experimentation. It does not cover animal handling techniques. The worker would only perform those tasks under the guidance and supervision of a scientific officer.

Status Elective

Elements

- Assist with organisation of fieldwork
- Perform tasks related to field camp operations
- Perform tasks related to field surveys
- Demonstrate basic field survival skills
- Assist with the close down of field camp

Prerequisites:

This unit of competency has no prerequisites.

PMLTEST307B - Prepare trial batches for evaluation

This unit covers the ability to prepare trial batches of materials for evaluation. Materials can include soil, minerals and manufactured products, such as concrete, asphalt, food, plastics, paint and other industrial chemicals.

Status Elective

Elements

- Prepare for trial batch mixing
- Mix trial batch for evaluation
- Evaluate properties of the mixture by inspection and standard test methods
- Clean equipment and dispose of materials
- Maintain records
- Maintain a safe work environment

Prerequisites:

This unit of competency has no prerequisites.

PMLTEST308A - Perform microscopic examination

This unit covers the ability to prepare routine samples and examine them using a light microscope, standard methods and readily available advice. Personnel are required to set up microscopes for optimum resolution and observe, identify and report sample characteristics. The unit covers limited interpretation and analysis of results. Troubleshooting of equipment and procedures is not required

Status Elective

Elements

- Interpret test requirements
- Set up work area for preparation and examination of samples
- Prepare samples for examination
- Set up and use a light microscope
- Observe, identify and report sample characteristics
- Maintain a safe work environment

Prerequisites:

This unit of competency has no prerequisites.
