Title	**Design and perform microbiological sampling for laboratory analysis**		
Level	**6**	**Credits**	**4**

Purpose	People credited with this unit standard are able to: design a sampling plan; perform microbiological sampling and store samples; and select and perform a sub-sampling process to provide a laboratory sample for laboratory analysis.

Classification	Science > Microbiology

Available grade	Achieved

Guidance Information

1 All work must be carried out in accordance with the quality management system, documented protocol system or Standard Operating Procedures (SOP) acceptable in a commercial or research laboratory.

2 Health and Safety practices must conform to Australian/New Zealand Standard AS/NZS 2243 – *Safety in Laboratories* Parts 1, 2, 3, 7 and 10 available at http://www.standards.co.nz and http://infostore.saiglobal.com/store.

3 Legislation applicable to this unit standard includes:
Health and Safety at Work Act 2015;
Hazardous Substances and New Organisms Act 1996.

4 Evidence is required for two samples from two different sources – soil, water, food, animal, plant, medical, industrial surface.

5 Glossary
Laboratory procedures refer to documented systems or processes of operation which may be found in a SOP manual, quality management system, or in protocol system documentation. These procedures are external and/or internal laboratory requirements governing laboratory work.
Standard refers to the Food Standards Australian New Zealand Code, Standard 1.6.1 – *Microbiological Limits for Food*, available at http://www.foodstandards.govt.nz/code/Pages/default.aspx.

Outcomes and performance criteria

Outcome 1

Design a sampling plan.

Performance criteria

1.1 Sampling plan is designed which aligns to the standard for the specific material to be analysed.

Range plan includes – statistical validity, representative sample collection, handling changes to sample, resources.

1.2 The resources required to implement the plan are identified and explained in accordance with laboratory procedures.

Range collection vessels, transport conditions, labelling, sample documentation, laboratory procedures document.

Outcome 2

Perform microbiological sampling and store samples.

Performance criteria

2.1 Resources for sampling are prepared in accordance with the sampling plan.

2.2 The sampling is carried out, and samples are stored and labelled in accordance with the sampling plan and laboratory procedures.

Range aseptic sampling, labelling, storage, traceability, sample documentation.

Outcome 3

Select and perform a sub-sampling process to provide a laboratory sample for laboratory analysis.

Performance criteria

3.1 The selection details the sample division in terms of the sample.

3.2 Sub-sampling is carried out and documented in accordance with the sampling plan and laboratory procedures.

Planned review date	31 December 2023

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	21 May 2010	N/A
Rollover	2	27 January 2015	N/A
Review	3	27 September 2018	N/A

Consent and Moderation Requirements (CMR) reference	0113

This CMR can be accessed at http://www.nzqa.govt.nz/framework/search/index.do.

Comments on this unit standard

Please contact NZQA National Qualifications Services nqs@nzqa.govt.nz if you wish to suggest changes to the content of this unit standard.