

Title	Test food for spoilage organisms and pathogens		
Level	6	Credits	6

Purpose	People credited with this unit standard are able to: describe contamination of food by microorganisms; test for the presence of food spoiling and food poisoning microorganisms; and explain the role of coliforms in food and methods used to detect them.
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Classification	Science > Microbiology
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Available grade	Achieved
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Guidance Information

- 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.
- 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>.
- Legislation applicable to this unit standard includes:
Health and Safety at Work Act 2015;
Hazardous Substances and New Organisms Act 1996.
- 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.
- Recommended for entry: Unit 8023, *Demonstrate and apply knowledge of microorganism biochemical pathways*; Unit 8040, *Perform aseptic laboratory techniques*; and Unit 26117, *Work safely in a science laboratory*.

Outcomes and performance criteria

Outcome 1

Describe contamination of food by microorganisms.

Performance criteria

- 1.1 The role of microorganism in contamination is described in terms of food poisoning and food infections.
- 1.2 Preventative methods to reduce contamination are described in terms of the food poisoning and food infections.

Outcome 2

Test for the presence of food spoiling and food poisoning microorganisms.

Range methods of testing include – sampling, pre-enrichment, isolation, count; evidence of three food samples is required.

Performance criteria

- 2.1 Food samples are tested for the presence of bacteria in accordance with laboratory procedures.

Range bacteria include – food spoiling, food poisoning.

Outcome 3

Explain the role of coliforms in food and test for coliform presence.

Range evidence of three methods is required.

Performance criteria

- 3.1 The presence of coliforms is explained in relation to their role in food.
- 3.2 A food sample is tested for the presence of coliforms in accordance with laboratory procedures.

Planned review date	31 December 2023
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	22 December 1996	31 December 2014
Review	2	24 February 1998	31 December 2014
Review	3	23 November 1999	31 December 2014
Review	4	21 May 2010	N/A
Rollover	5	27 January 2015	N/A
Review	6	27 September 2018	N/A

Consent and Moderation Requirements (CMR) reference	0113
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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.