

Title	Explain cultivation of microorganisms in bioreactor systems		
Level	6	Credits	4

Purpose	People credited with this unit standard are able to explain cultivation of microorganisms in bioreactor systems.
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Classification	Science > Microbiology
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Available grade	Achieved
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Guidance Information

None.

Outcomes and performance criteria

Outcome 1

Explain cultivation of microorganisms in bioreactor systems.

Performance criteria

- 1.1 The design features of bioreactor systems are explained in relation to culturing microorganisms.
- Range systems include – open, closed.
- 1.2 The management of bioreactors is explained in terms of the microorganism's nutrient supply in the system.
- Range batch, continuous.
- 1.3 Factors influencing the culturing of microorganisms in bioreactors are explained in relation to management of resources.
- Range temperature, gas exchange, pH, agitation, sterility.
- 1.4 Desired product from substrate in bioreactors is explained in terms of separation techniques.

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Status information and last date for assessment for superseded versions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	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.