

Title	Describe seafood biochemistry		
Level	4	Credits	10

Purpose	<p>This unit standard is for people working in a seafood operation.</p> <p>People credited with this unit standard are able to describe: the biochemical composition of seafood and the impact of seasonal changes; the structure of proteins and lipids in seafood and the biochemical importance of water in seafood; and the biochemical basis for common post mortem changes in seafood products.</p>
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Classification	Seafood > Seafood Processing
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Available grade	Achieved
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Guidance Information

None.

Outcomes and performance criteria

Outcome 1

Describe the biochemical composition of seafood and the impact of seasonal changes.

Performance criteria

- 1.1 Describe seafood in terms of the biochemical composition.
- 1.2 Describe seafood characteristics in terms of seasonal changes in composition and the consequent impacts.

Outcome 2

Describe the structure of proteins and lipids in seafood and the biochemical importance of water in seafood.

Performance criteria

- 2.1 Describe the structure of proteins in seafood in terms of primary, secondary, tertiary, and quaternary protein structure.
- 2.2 Describe seafood in terms of the structure of lipids.

2.3 Describe the biochemical importance of water in seafood.

Outcome 3

Describe the biochemical basis for common post mortem changes in seafood products.

Performance criteria

3.1 Describe the reactions that lead to oxidation and rancidity in seafood products.

3.2 Describe protein denaturation and the consequences of this process on seafood quality.

Range includes but is not limited to – texture changes, water holding capacity.

Planned review date	31 December 2028
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	27 August 2001	31 December 2012
Review	2	23 January 2009	31 December 2012
Review	3	18 February 2011	31 December 2020
Review	4	24 January 2019	N/A
Rollover	5	29 February 2024	N/A

Consent and Moderation Requirements (CMR) reference	0123
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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 the Muka Tangata - People, Food and Fibre Workforce Development Council qualifications@mukatangata.nz if you wish to suggest changes to the content of this unit standard.