

FIELD SCIENCES**Review, Revision and Rollover of *Science* unit standards****Revision and Rollover of *Food Science* unit standards**

Subfield	Domain	Id
Science	Food Science	16751-16755

The National Qualifications Services (NQS) of NZQA has decided that the unit standards above, which were registered in June 2000, should have their period of registration extended.

The reason for the rollover is that the unit standards have not been used sufficiently to warrant a review at this stage. They have also been revised to update the moderation option and the special notes.

A review of these unit standards is planned to take place during 2006.

Date new versions published **September 2004**

New comments by date **December 2006**

Expiry date of new versions of the unit standards **December 2007**

Main changes resulting from the revision

- Special notes were updated in terms of legislation, industry standards, references, and the definition of food.
- The moderation option was updated.

Review of *Science* unit standards

Subfield	Domain	Id
Science	Biochemistry	8046, 8052, 8058
	Biology	8097, 8098
	Chemistry	8444, 8457
	Microbiology	8029
	Science – Core	8440, 8466-8468, 9183

NQS has completed a review of the unit standards listed above that were registered in December 1996 and November 1999.

Date new versions published **September 2004**

New comments by date **December 2008**

Expiry date of new versions of the unit standards **December 2009**

Summary of review and consultation process

In 2003 NQS initiated a review of selected high level *Science* unit standards following feedback from assessors that changes were needed. *Science* unit standards focusing on safety also needed to be considered in the light of current legislation impacting on work in science laboratories. Unit standards 8029, 8467 and 8468 were considered in the light of the requirements of the Hazardous Substances and New Organisms (HSNO) Act 1996.

A subgroup of NQS's National Diploma in Science advisory network met in September 2003 to review the unit standards. This review panel included both tertiary provider and industry members. Review drafts were subsequently circulated to people and organisations that had expressed an interest in the review. Endorsement of the final drafts came from the advisory network.

Main changes resulting from the review

The main changes are as follows.

- Special notes relating to legislation and references have been updated.
- Elements, performance criteria, range statements and/or special notes have been changed, or added to, to clarify assessment requirements.
- The credit allocation for unit standards 8046, 8097 and 8098 has been increased.
- The title for each of unit standards 8052, 8097, 8098, 8440 and 8467 has been changed.
- The level of unit standard 8440 has been decreased.
- Unit standard 8029 has been moved from the domain of *Microbiology* to the domain of *Science – Core*.
- Unit standards 8466 and 9183 have been amended to eliminate overlap between them.
- Unit standard 8046 now has additional evidence requirements so that it is more in line with the allocated level.
- Changes have been made to unit standard 8467 to give it a more practical focus, consistent with parallel unit standard 8029.
- Unit standard 8468 has been replaced by unit standard 20885.
- New unit standard 20886 has been developed to address the complex requirements of the HSNO Act.

Unit standards categorised as category C expire at the end of December 2005.

Impact on existing provider accreditations

Current Accreditation for			Accreditation extended to		
Nature of accreditation	Classification or Id	Level	Nature of accreditation	Classification or Id	Level
Domain	Microbiology	6	Standard	8029	4

Impact on existing qualifications

None.

Summary of main changes to standards' Ids, classification, titles, levels, and credits

The following summary shows the changes made to the standards as a result of the review. All changes are in **bold**.

Key to review category	
A	Dates changed, but no other changes are made – the replacement standard carries the same Id and a new version number
B	Changes made, but the overall outcome remains the same – the replacement standard carries the same Id and a new version number
C	Major changes that necessitate the registration of a replacement standard with a new Id
D	Standard will expire and not be replaced

Subfield Science

Id	Domain	Title	Level	Credit	Review Category
8046	Biochemistry	Perform high pressure liquid chromatography	6	3 4	B
8052	Biochemistry	Determine protein concentration Determine protein concentration in solution	5	2	B
8058	Biochemistry	Demonstrate knowledge of plant biochemistry	6	6	A
8097	Biology	Undertake field sampling and measurements of plants, with guidance Undertake field sampling and measurements of plants	5	3 4	B
8098	Biology	Undertake field sampling of animals, with guidance Undertake field sampling and measurements of animals	5	3 4	B
8444	Chemistry	Perform inorganic analysis of waters	6	6	B
8457	Chemistry	Apply knowledge of the chemistry of carbohydrates, lipids and proteins	5	5	B
8029	Microbiology Science – Core	Demonstrate knowledge and ability to work safely in a microbiological laboratory	4	2	B
8440	Science – Core	Maintain laboratory quality systems Comply with laboratory quality management systems	6 5	4	B
8466	Science – Core	Demonstrate competence in principles of laboratory measurement and recording	4	3	B
8467	Science – Core	Describe safe practices when working with laboratory chemicals Demonstrate knowledge and ability to work safely in a chemical laboratory	4	3	B

Id	Domain	Title	Level	Credit	Review Category
8468	Science – Core	Carry out safe practices when working with chemicals	6	4	C
20885	Science – Core	Manage hazardous substances compliance in a science laboratory	6	4	
9183	Science – Core	Demonstrate knowledge of units and notation in science	3	3	B

New unit standard

The following new unit standard was developed to fill a gap identified by the review process.

Subfield Science

Id	Domain	Title	Level	Credit
20886	Science – Core	Demonstrate knowledge of hazardous substances in science laboratories and related legislation	6	5