



QQI

Quality and Qualifications Ireland
Dearbhú Cáilíochta agus Cáilíochtaí Éireann

Certificate Specification NFQ Level 5

Food Science 5M5267

1. Certificate Details

Title	Food Science
Teideal as Gaeilge	Eolaíocht an Bhia
Award Type	Major
Code	5M5267
Level	5
Credit Value	120
Purpose	The purpose of this award is to enable the learner to acquire the knowledge, skill, and competence the theory, principles practices and techniques underpinning Food Science and Food Processing to enable the learner to work under supervision in a variety of contexts in the food industry and or to progress to further and or higher education and training.
Statements of Knowledge, Skill and Competence	Learners will be able to:
Knowledge	
<i>Breadth</i>	Demonstrate a broad range of knowledge in relation to the science of food and nutrition, food quality, safety, composition, standards and processing
<i>Kind</i>	Demonstrate knowledge of theoretical concepts and best practices relating to food in range of contexts to include; processing, analysis, preservation, safety and quality
Know How & Skill	
<i>Range</i>	Demonstrate skills in food processing and preparation and a broad range of laboratory skills used in food analysis to monitor and maintain quality and standards

Selectivity Exercise judgment in selecting appropriate food processing and or preparation techniques and experimental procedures to monitor food products

Competence

Context Apply scientific based knowledge and skills to a range of varied contexts to include quality assurance, laboratories, food preparation and processing areas, storage, and sales

Role Contribute under supervision to carrying out procedures for food analysis, food processing and or preparation, packaging, storage and stock rotation

Learning to Learn Take responsibility for own learning in a structured context

Insight Display a broad insight and understanding into the importance of food quality and safety.

The learning outcomes associated with this award are outlined in the associated Component Specifications.

Access To access programmes leading to this award the learner should have reached the standards of knowledge, skill and competence associated with the preceding level of the National Framework of Qualifications. This may have been achieved through a formal qualification or through relevant life and work experience.

Transfer Achievement of this award will enable the learner to transfer to other appropriate programmes leading to awards at the same level of the National Framework of Qualifications.

Progression Achievement of this award will enable the learner to progress to other appropriate programmes leading to awards at the next or higher levels of the National Framework of Qualifications.

Progression Awards Learners who successfully complete this award may progress to a range of different awards.

Grading Pass
Merit
Distinction
The grade achieved will be determined by the grades achieved on the components

2. Certificate Requirements

The total credit value required for this certificate is 120. This will be achieved by completing:

Award Code	Title	Level	Credit Value
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All of the following component(s)

5N0737	Microbiology	5	15
5N2748	Food Chemistry	5	15
5N5245	Food Processing	5	15

A minimum credit value of 15 from the following components

5N0690	Communications	5	15
5N0972	Customer Service	5	15
5N1367	Teamworking	5	15
5N1390	Personal Effectiveness	5	15

A minimum credit value of 15 from the following components

5N1433	Work Practice	5	15
5N1356	Work Experience	5	15

A minimum credit value of 30 from the following components

5N2751	Laboratory Skills	5	15
5N5266	Food Safety and HACCP	5	15
5N1460	Physics	5	15
5N1794	Safety and Health at Work	5	15
5N1833	Mathematics	5	15
5N2006	Nutrition	5	15
5N2746	Biology	5	15
5N2747	Chemistry	5	15

The remaining credit value of 15 can be obtained by using relevant component(s) from level 5. A maximum of 15 credits may be used from either level 4 or level 6.

3. Supporting Documentation

None

4. Specific Validation Requirements

There are no specific validation requirements

5. Europass Certificate Supplement

The Europass Certificate Supplement for this award can be accessed at: www.qqi.ie.

6. FET Award Standards

QQI award standards are determined within the National Framework of Qualifications (NFQ), <http://www.nfq-qqi.com>. QQI determines standards for the education and training awards that it makes itself and that are made by providers to whom it has delegated authority to make an award. Providers offering programmes leading to QQI awards **must** have their programme(s) validated in accordance with current validation policy (see www.qqi.ie).

Award standards are designed to be consistent with the NFQ's award classes i.e. major, special purpose, supplemental and minor awards. They are expressed in terms of **learning outcomes** i.e. concise statements of what the learner is expected to know or be able to do in order to achieve a particular award. Learning outcomes for QQI awards are contained within the associated specifications:

AWARD CLASS	STANDARDS	AWARDS
Major Award	Certificate Specification	Certificate (Levels 1 to 5) Advanced Certificate (Level 6)
Supplemental Award	Supplemental Specification	Supplemental Certificate (Level 3 to 6)
Special Purpose	Specific Purpose Specification	Specific Purpose Certificate (Levels 3 to 6)
Minor Award	Component Specification	Component Certificate (Levels 1 to 6)

Award standards are thresholds, they describe standards of knowledge, skill or competence to be acquired, and where appropriate, demonstrated, by a learner before an award may be made.

Award standards will be reviewed from time to time as necessary. Minor changes may be made by the QQI executive outside the review cycle where necessary. Changes to standards are published on QQI's website. Providers with validated programmes and providers with delegated authority to make awards are responsible for monitoring relevant standards and making necessary responses to changes.

7. FET Credit

Every FET certificate and component specification includes an FET credit value (Table 1). FET credit is quantified in multiples of 5 FET credits (up to 50 hours of learner effort). Learner effort is based on the time taken by typical learners at the level of the award to achieve the learning outcomes for the award. It includes all learning time involved including: guided learning hours, self-directed learning and assessment.

Table 1: FET Credit Values

NFQ Level	Major Awards Credit Values	Default Credit Values Minor Awards	Other Permitted Minor Award Credit Values	Special Purpose and Supplemental Award Credit Value Ranges
1	20	5	10	
2	30	5	10	
3	60	10	5,20	>5 and <60
4	90	10	5,15,20	>5 and <90
5	120	15	5,10,30	>5 and <120
6	120	15	5,10,30	>5 and <120

Guide to Level

Learning outcomes at this level include a broad range of skills that require some theoretical understanding. The outcomes may relate to engaging in a specific activity, with the capacity

to use the instruments and techniques relating to an occupation. They are associated with work being undertaken independently, subject to general direction.

Strand	Sub-strand	Nature of learning
Knowledge	Breadth	Broad range of knowledge
	Kind	Some theoretical concepts and abstract thinking, with significant depth in some areas. Some underpinning theory
Know How & Skill	Range	Demonstrate a broad range of specialised skills and tools
	Selectivity	Evaluate and use information to plan and develop investigative strategies and to determine solutions to varied unfamiliar problems
Competence	Context	Act in a range of varied and specific contexts, taking responsibility for the nature and quality of outputs; identify and apply skill and knowledge to a wide variety of contexts
	Role	Exercise some initiative and independence in carrying out defined activities; join and function within multiple, complex and heterogeneous groups
	Learning to Learn	Learn to take responsibility for own learning within a managed environment
	Insight	Assume full responsibility for consistency of self- understanding and behaviour

Extract from 'Determinations for the Outline National Framework of Qualifications': NQAI