

Certificate Specification NFQ Level 5

Aquaculture 5M5156

1. Certificate Details

Title	Aquaculture
Teideal as Gaeilge	Uiscshaothrú
Award Class	Major
Code	5M5156
Level	5
Credit Value	120
Purpose	The purpose of this award is to equip the learner with the knowledge, skill and competence to work in aquaculture, using some initiative and independence while under general direction and or to progress to further 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 of the general and commercial principles on which the industry area is based.
<i>Kind</i>	Demonstrate knowledge of theoretical concepts practices and processes pertinent to the industry.
Know How & Skill	
<i>Range</i>	Demonstrate a broad range of analytical, interpersonal and communication skills in providing for the needs of business with the aquaculture sector.
<i>Selectivity</i>	Demonstrate a range of creative and practical skills that will contribute to the planning, implementation and evaluation of defined tasks and varied unfamiliar problems in an aquaculture setting.
Competence	

<i>Context</i>	Apply business skills and technical ability within a wide range of varied and specific aquaculture contexts whilst taking responsibility for the nature and quality of outputs.
<i>Role</i>	Demonstrate confidence, discipline and perception within own work environment, exercising creativity and independence whilst working individually or as member of a production group within an aquaculture setting.
<i>Learning to Learn</i>	Take responsibility for own learning within a structured context.
<i>Insight</i>	Reflect on personal practice to evaluate and inform self-understanding and personal behaviour in an aquaculture context.

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	<p>Pass</p> <p>Merit</p> <p>Distinction</p> <p>The grade achieved will be determined by the grades achieved on the components</p>

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
All of the following component(s)			
5N1794	Safety and Health at Work	5	15
5N5206	Aquaculture Hatchery Production	5	15
5N5285	Shellfish Ongrowing Operations	5	15

5N5286	Finfish Ongrowing Operations	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			
5N5287	Seaweed Ongrowing	5	15
5N5288	Seafood Hygiene Management	5	15
5N5305	Safety Boat Handling Skills	5	10
5N1608	Engineering Workshop Processes	5	15
5N4628	Marine Engineering Processes	5	15
5N4629	Navigation and Stability	5	15
5N5069	Marine Engine Operations	5	15
5N5088	Work Boat Handling	5	15

3. Supporting Documentation

1. BIM's Aquaculture Guides to Finfish and Shellfish Farming
- 2.
3. BIM manuals relating to hatchery production.
- 4.
5. BIM manuals relating to seaweed production.
- 6.
7. Legislation relevant to hatchery production, finfish and shellfish fish culture
- 8.
9. Examples of existing finfish, shellfish and hatchery licences
- 10.
11. Aquaculture reference books and journals.
- 12.
13. Current Safety and Health at Work legislation.
- 14.
15. Health & Safety guides relevant to aquaculture
- 16.
17. A Health & Safety Statement dealing with classroom, workboat and visits to aquaculture farms, hatcheries and nursery units
- 18.
19. Public liability insurance.

4. Specific Validation Requirements

The provider must have all of the following in place to offer this award:

- 1.

- 2.
3. Aquaculture workboat licensed to carry passengers with a Department of Transport Tourism and Sport qualified skipper.
- 4.
5. Access to shellfish fish farms and research facilities both land-based and marine.
- 6.
7. Access to finfish and shellfish hatchery or nursery units.
- 8.
9. Access to a variety of shorelines.
- 10.
11. Access to an algal hatchery and a seaweed farm.
- 12.
13. Access to aquariums, aerators, pumps, filtration, light and heaters
- 14.
15. Microscopes, graticules, haemocytometer set and Sedwick rafter counting slides.
- 16.
17. Meters for oxygen, temperature, pH and salinity, thermometers, hydrometers and secchi discs plus test kits for pH, ammonia, nitrate and nitrite
- 18.
19. Sampling equipment to include underwater camera, weighing scales, measuring board and water analysis equipment.
- 20.
21. Weighing scales, measuring boards and vernier callipers, laboratory glassware and disinfectants.
- 22.
23. Manual fish graders and mesh sieves for grading shellfish.
- 24.
25. Fish and shellfish for dissections plus dissection kits, disposable gloves and dissection boards
- 26.
27. Live shellfish for conditioning / spawning.
- 28.
29. Fish eggs and sperm or simulated fish eggs and sperm.
- 30.
31. Fish feed (assorted), rotifers, artemia and their feed and culture vessels.
- 32.
33. Micro algae both paste and live.
- 34.
35. A space suitably equipped for the construction, repair and maintenance of fish farming equipment.

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
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Knowledge	Breadth	Broad range of knowledge
	Kind	Some theoretical concepts and abstract thinking, with significant depth in some areas.
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