

# Aquaculture & Sports Fisheries



**EQF**  
**Level**  
**5**

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## **Diploma Aquaculture Level 5 European Qualification Aquaculture**

## **Diploma Sports Fishing Level 5 European Qualification Sports Fisheries**

The European Qualifications (EQF) and Credit Framework (ECTS) have been introduced as an alternative for the National Qualification Networks of the European member states. It recognises achievement through the award of credit for units and qualifications, working at all levels between Entry level and level 8.

To accommodate the European framework we have taken the opportunity to write this new qualifications as stated in the Leonardo project nr 2012-1-NL1-LEO04-08959 1 as level 5 qualifications in EQF.

For the participating partners France, Hungary, Austria and the Netherlands it means that the EQF levels are the same as there NQF levels, for Great Britain it means EQF level 5 is NQF level 4.

To achieve a diploma a minimum of 120 Credit points is needed, and the number of study hours is stated at 1600.

To enter this program the learner needs an EQF level 4 Diploma or an assessment proves that this level is acquired by working in practice.

## The European Qualification Framework

Each of the 8 levels is defined by a set of descriptors indicating the learning outcomes relevant to qualifications at that level in any system of qualifications.

		<b>Knowledge</b>
		In the context of EQF, knowledge is described as theoretical and/or factual.
<b>Level 1</b>	The learning outcomes relevant to Level 1 are	<ul style="list-style-type: none"> <li>• basic general knowledge</li> </ul>
<b>Level 2</b>	The learning outcomes relevant to Level 2 are	<ul style="list-style-type: none"> <li>• basic factual knowledge of a field of work or study</li> </ul>
<b>Level 3</b>	The learning outcomes relevant to Level 3 are	<ul style="list-style-type: none"> <li>• knowledge of facts, principles, processes and general concepts, in a field of work or study</li> </ul>
<b>Level 4</b>	The learning outcomes relevant to Level 4 are	<ul style="list-style-type: none"> <li>• factual and theoretical knowledge in broad contexts within a field of work or study</li> </ul>
<b>Level 5*</b>	The learning outcomes relevant to Level 5 are	<ul style="list-style-type: none"> <li>• comprehensive, specialised, factual and theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge</li> </ul>
<b>Level 6**</b>	The learning outcomes relevant to Level 6 are	<ul style="list-style-type: none"> <li>• advanced knowledge of a field of work or study, involving a critical understanding of theories and principles</li> </ul>
<b>Level 7***</b>	The learning outcomes relevant to Level 7 are	<ul style="list-style-type: none"> <li>• highly specialised knowledge, some of which is at the forefront of knowledge in a field of work or study, as the basis for original thinking and/or research</li> <li>• critical awareness of knowledge issues in a field and at the interface between different fields</li> </ul>
<b>Level 8****</b>	The learning outcomes relevant to Level 8 are	<ul style="list-style-type: none"> <li>• knowledge at the most advanced frontier of a field of work or study and at the interface between fields</li> </ul>

## **Compatibility with the Framework for Qualifications of the European Higher Education Area**

The Framework for Qualifications of the European Higher Education Area provides descriptors for cycles. Each cycle descriptor offers a generic statement of typical expectations of achievements and abilities associated with qualifications that represent the end of that cycle.

\* The descriptor for the higher education short cycle (within or linked to the first cycle), developed by the Joint Quality Initiative as part of the Bologna process, corresponds to the learning outcomes for EQF level 5.

\*\* The descriptor for the first cycle in the Framework for Qualifications of the European Higher Education Area agreed by the ministers responsible for higher education at their meeting in Bergen in May 2005 in the framework of the Bologna process corresponds to the learning outcomes for EQF level 6.

\*\*\* The descriptor for the second cycle in the Framework for Qualifications of the European Higher Education Area agreed by the ministers responsible for higher education at their meeting in Bergen in May 2005 in the framework of the Bologna process corresponds to the learning outcomes for EQF level 7.

\*\*\*\* The descriptor for the third cycle in the Framework for Qualifications of the European Higher Education Area agreed by the ministers responsible for higher education at their meeting in Bergen in May 2005 in the framework of the Bologna process corresponds to the learning outcomes for EQF level 8.

## UNITS

The units for the EQF in Aquaculture and Sports Fisheries are available from The <http://www.pesfa.eu> Website.

### Qualification titles covered by this specification

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The units for the EQF Aquaculture and Sports Fisheries are available from the <http://www.pesfa.eu> Website.

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## Qualification titles covered by this specification

Aquaculture.	Level 5 EQF
Sports Fisheries.	Level 5 EQF

These qualifications have been accredited to the European Qualifications (EQF) and Credit Framework (ECTS). The Qualification Numbers (QNs) for these qualifications are listed below.

These qualification titles are as they will appear on learners' certificates. Learners need to be made aware of this when they are recruited by the Schools or Learning centres. Providing this happens, Schools and Learning centres are able to describe the programme of study leading to the award of the qualification in different ways to suit the medium and the target audience.

The Quality Assurance Agencies for Higher Education in the participating countries have produced guidelines for Schools and Learning centres in preparing programme specifications.

Working with programme specifications: a leaflet for further education colleges of this QAA document contains additional guidance notes to support further education colleges writing programme specifications for diplomas in the different countries.

### Qualification Numbers

The Qualifications (EQF) and Credit Framework (ECTS) code is known as a Qualification Number (EQN).

Each unit within a qualification will also have a EQF unit code.

The EQF qualification and unit codes will appear on learners' final certification documentation.

The QNs for qualifications in this publication are:

..... Level 5 EQF Diploma in Aquaculture.

..... Level 5 EQF Diploma in Sports Fisheries.

### Introduction

This specification contains the units and associated guidance for the Diploma in Aquaculture and Sports Fisheries Level 5 EQF.

Each unit sets out the required learning outcomes, assessment criteria and content and may also include advice regarding essential delivery and assessment strategies.

This document also contains details of the teaching, learning, assessment and quality assurance of these qualifications. It includes advice regarding access to its qualifications, the design of programmes of study and delivery modes.

## **Structure of the qualifications**

### **The Aquaculture Diploma**

Level 5 Diploma in Aquaculture is a qualification with a minimum of 120 credits of which 80 credits are core.

### **The Sport Fisheries Diploma**

Level 5 Diploma in Sports Fisheries is a qualification with a minimum of 120 credits of which 80 credits are core.

## **Rules for Level 5 EQF qualifications in Aquaculture and Sports Fisheries**

The rules of combination specify the:

- Total credit value of the qualification.
- Minimum credit to be achieved at the level of the qualification.
- Core unit credit.
- Specialist unit credit.
- Maximum credit that can be centre devised or imported from other qualification systems..

When combining units for an EQF qualification it is the centre's responsibility to ensure that the following rules of combination are adhered to:

### **EQF Level 5 in Aquaculture or Sports Fisheries**

- 1 Qualification credit value: a minimum of 120 credits.
- 2 A minimum of 1600 hours of study.
- 3 Core unit credit: 80 credits.
- 4 Specialist unit credit: 40 credits.

## Structure Level 5 EQF in Aquaculture or Sports Fisheries

Level 5 EQF in Aquaculture or Sports Fisheries is a 120 credit qualification that consists of 80 core credits, including a minimum of 40 credits from the free choice Units.

Number	Core Units	Unit Credit	Unit Level
1	History and Development of Sport Fishing, the Sport Fishing Industry and Aquaculture in Europe.	10	5
2	Fish Identification, Non-native Species and Endangered Species	10	5
3	Entrepreneur Skills in the Fisheries Industry	10	5
4	Specialist Project Study	50	5
Students choose 4 Units From A or B			
(Option) A			
5	Angling Skills	10	5
6	Fish Health and Welfare	10	5
7	Aquatic Ecology	10	5
8	Integrative Water Management	10	5
9	Sports Fisheries and Tourism	10	5
(Option) B			
6	Fish Health and Welfare	10	5
7	Aquatic Ecology	10	5
8	Integrative Water Management	10	5
10	Aquaculture Systems	10	5
11	Fish Farming Techniques	10	5

In some countries additional requirements are necessary to get a Level 5 EQF diploma. Look at your own NQF.



## Key features

The European Qualification Framework is designed to provide specialist vocational programmes, linked to professional body requirements and International Occupational Standards.

They offer a strong, sector-related emphasis on practical skills development alongside the development of requisite knowledge and understanding.

The qualifications provide a thorough grounding in the key concepts and practical skills required in their sector and their national recognition by employers allows direct progression to employment.

Aquaculture and Sports Fisheries have been developed to focus on:

- the education and training for a range of careers in aquaculture and sports fisheries and allied industries
- opportunities for those employed within these industries to achieve an internationally recognised higher level vocationally specific qualification
- opportunities for full-time learners to gain an internationally recognised vocationally specific higher level qualification to enter employment within these industries at supervisory or management level or to progress to higher education vocational qualifications such as a full-time degree in aquaculture or sports fisheries or a related subject area.
- expansion of the knowledge, understanding and skills of learners from an aquaculture or sports fisheries or allied industry supervisor's or manager's viewpoint
- opportunities for learners to concentrate on the development of higher-level skills in an aqua cultural/sports fisheries context, and how their role and that of their business fits within the overall structure of that industries, the national and international economy and the global overview
- opportunities for learners to develop a range of skills, techniques and attributes essential for successful performance in working life.

**This qualification meets the needs of the above rationale by:**

- giving individuals knowledge, understanding and skills for successful employment in the Aquaculture or sports fisheries and allied industries
- enabling progression to an undergraduate degree or further professional qualifications in related areas
- providing opportunities for specialist study relevant to individual vocations and contexts
- developing the individual's ability in the aquaculture or sports fisheries and allied industries through effective use and combination of the knowledge and skills gained in different parts of the programme
- developing a range of skills and techniques, personal qualities and attributes essential for successful performance in working life and thereby enabling learners to make an immediate contribution to employment
- providing flexibility, knowledge, skills and motivation as a basis for future studies and career development in the aquaculture or sports fisheries and allied industries.

## Qualification Requirement

The EU has published Qualification Requirements as part of the EQF. Qualification Requirements set out the aims and rationale of the qualifications and provide the framework of curriculum content. They also identify the higher-level skills associated with the qualifications and any recognition by relevant professional bodies. The Qualification Requirement for the EQF Level 5 is given in Annexe A.

Qualification Requirements provide consistent standards within the same vocational area and identify the skills and knowledge that can be expected of any holder of an identical EQF Level 5 Diploma.

This will allow higher education institutions, employers and professional bodies to confidently provide progression opportunities to successful learners.

### Higher-level skills

Learners studying for EQF Level 5 Aquaculture or Sports Fisheries will be expected to be able to do the following:

- analyse, synthesise and summarise information critically
- read and use appropriate literature with a full and critical understanding
- think independently, solve problems and devise innovative solutions
- take responsibility for their own learning and recognise their own learning style
- apply subject knowledge and understanding to address familiar and unfamiliar problems
- design, plan, conduct and report on investigations
- use their knowledge, understanding and skills to evaluate and formulate evidence-based arguments critically and identify solutions to clearly defined problems of a routine nature
- communicate the results of their study and other work accurately and reliably using a range of specialist techniques
- identify and address their own major learning needs within defined contexts and to
- undertake guided further learning in new areas

### EQF Level 5

The EQF Level 5 Aquaculture or Sports Fisheries provides a specialist work-related programme of study that covers the key knowledge, understanding and practical skills required in the sector and also offers specialist emphasis through the choice of specialist units.

EQF Level 5 Aquaculture or Sports Fisheries provide internationally recognised qualifications offering career progression and professional development for those already in employment and opportunities to progress into higher education. The qualifications are mode free but they are undertaken by part-time learners studying over two years and full-time learners studying one year.

opportunities for those wishing to complete an intensive programme of study in a shorter period of time.

This specification gives centres a framework to develop engaging programmes for higher education learners who are clear about the area of employment that they wish to enter.

## **Teaching, learning and assessment**

Learners must achieve a minimum of 120 credits on their programme of learning to be awarded an EQF level 5 and studied at least 1600 hours.

The assessment of EQF is criterion-referenced and centres are required to assess learners' evidence against published learning outcomes and assessment criteria.

All units will be individually graded as 'pass', 'merit' or 'distinction'. To achieve a pass grade for the unit learners must meet the assessment criteria set out in the specifications. This gives transparency to the assessment process and provides for the establishment of national standards for each qualification.

The units in these qualifications all have a standard format which is designed to provide guidance on the requirements of the qualification for learners, assessors and those responsible for monitoring international standards.

### **Unit format**

Each unit is set out in the following way.

Unit title, unit code, EQF level and credit value.

The unit title is accredited on the EQF and this form of words will appear on the learner's Notification of Performance.

Each unit is assigned a level, indicating the relative intellectual demand, complexity and depth of study, and learner autonomy. All units and qualifications within the EQF will have a level assigned to them, which represents the level of achievement. There are nine levels of achievement, from Entry level to level 8. The level of the unit has been informed by the EQF level descriptors and, where appropriate, the International Occupational Standards (IOS) and/or other sector/professional benchmarks.

Each unit in EQF qualifications has a credit value which specifies the number of credits that will be awarded to a learner who has achieved all the learning outcomes of the unit. Learners will be awarded credits for the successful completion of whole units.

### **Aim**

The aim provides a clear summary of the purpose of the unit and is a succinct statement that summarises the learning outcomes of the unit.

### **Unit abstract**

The unit abstract gives the reader an appreciation of the unit in the vocational setting of the qualification, as well as highlighting the focus of the unit. It gives the reader a snapshot of the unit and the key knowledge, skills and understanding gained while studying the unit. The unit abstract also highlights any links to the appropriate vocational sector by describing how the unit relates to that sector.

### **Learning outcomes**

The learning outcomes identify what each learner must do in order to pass the unit. Learning outcomes state exactly what a learner should 'know, understand or be able to do' as a result of completing the unit. Learners must achieve all the learning outcomes in order to pass the unit.

## **Unit content**

The unit content identifies the breadth of knowledge, skills and understanding needed to design and deliver a programme of learning to achieve each of the learning outcomes. This is informed by the underpinning knowledge and understanding requirements of relevant International Occupational Standards (IOS) where appropriate.

Each learning outcome is stated in full and then the key phrases or concepts related to that learning outcome are listed in italics followed by the subsequent range of related topics.

The information below shows how unit content is structured and gives the terminology used to explain the different components within the content.

- Learning outcome: this is given in bold at the beginning of each section of content.
- Italicised sub-heading: it contains a key phrase or concept. This is content which must be covered in the delivery of the unit. Colons mark the end of an italicised sub-heading.
- Elements of content: the elements are in roman text and amplify the sub-heading. The elements must also be covered in the delivery of the unit. Semi-colons mark the end of an element.
- Brackets contain amplification of elements of content which must be covered in the delivery of the unit.
- 'eg' is a list of examples used for indicative amplification of an element (that is, the content specified in this amplification that could be covered or that could be replaced by other, similar material).

It is not a requirement of the unit specification that all of the content is assessed.

Learning outcomes and assessment criteria. Each unit contains statements of the evidence that each learner should produce in order to receive a pass.

## **Guidance**

This section provides additional guidance and amplification related to the unit to support tutors/deliverers and assessors. Its subsections are given below.

- Links – sets out possible links between units within the specification. Provides opportunities for the integration of learning, delivery and assessment. Links to relevant International Occupational Standards and Professional Bodies Standards will be highlighted here.
  - Essential requirements – essential, unique physical and/or staffing resources or delivery/assessment requirements needed for the delivery of this unit are specified here.
  - Employer engagement and vocational contexts – this is an optional section. Where relevant it offers suggestions for employer contact to enhance the delivery of the unit.
- These subsections should be read in conjunction with the learning outcomes, unit content, assessment criteria and the generic grade descriptors.
- The centre will be asked to ensure that essential resources are in place when it seeks approval from National Bodies to offer the qualification.

## **Learning and assessment**

The purpose of assessment is to ensure that effective learning of the content of each unit has taken place. Evidence of this learning, or the application of the learning, is required for each unit.

The assessment of the evidence relates directly to the assessment criteria for each unit, supported by the generic grade descriptors.

The process of assessment can aid effective learning by seeking and interpreting evidence to decide the stage that learners have reached in their learning, what further learning needs to take place and how best to do this. Therefore, the process of assessment should be part of the effective planning of teaching and learning by providing opportunities for both the learner and assessor to obtain information about progress towards learning goals.

The assessor and learner must be actively engaged in promoting a common understanding of the assessment criteria and the grade descriptors (what it is they are trying to achieve and how well they achieve it) for further learning to take place. Therefore, learners need constructive feedback and guidance about how they may improve by capitalising on their

strengths and clear and constructive comments about their weaknesses and how these might be addressed.

Assessment instruments are constructed within centres. They should collectively ensure coverage of all assessment criteria within each unit and should provide opportunities for the evidencing of all the grade descriptors.

It is advised that assessment criteria and contextualised grade descriptors are clearly indicated on each assessment instrument to provide a focus for learners (for transparency and to ensure that feedback is specific to the criteria) and to assist with internal standardisation processes.

Tasks/activities should enable learners to produce evidence that relates directly to the assessment criteria and grade descriptors.

When centres are designing assessment instruments, they need to ensure that the instruments are valid, reliable and fit for purpose, building on the application of the assessment criteria.

Centres are encouraged to place emphasis on practical application of the assessment criteria, providing a realistic scenario for learners to adopt, making maximum use of work-related practical experience and reflecting typical practice in the sector concerned. The creation of assessment instruments that are fit for purpose is vital to achievement and their importance cannot be over-emphasised.

## **EQF Level 5**

Points range Grade

### **Recognition of Prior Learning**

Recognition of Prior Learning (RPL) is a method of assessment (leading to the award of credit) that considers whether a learner can demonstrate that they can meet the assessment requirements for a unit through knowledge, understanding or skills they already possess and so do not need to develop through a course of learning.

The EU encourages centres to recognise learners' previous achievements and experiences whether at work, home and at leisure, as well as in the classroom. RPL provides a route for the recognition of the achievements resulting from continuous learning.

RPL enables recognition of achievement from a range of activities using any valid assessment methodology. Provided that the assessment requirements of a given unit or qualification have been met, the use of RPL is acceptable for accrediting a unit, units or a whole qualification.

Evidence of learning must be valid and reliable.

For full guidance about RPL it is best to study national rules about this subject.

### **Quality assurance in EQF**

National quality assurance systems for all EQF higher level programmes will ensure that centres have effective quality assurance processes to review programme delivery. It will also ensure that the outcomes of assessment are to national standards.

It is the best that all partners, France, Hungary, Great Britain Austria and the Netherlands put their own quality assurance processes on these pages

## Programme design and delivery

The EQF qualifications consist of mandatory core units and specialist units.

The specialist units are designed to provide a specific focus to the qualification. Required combinations of specialist units are clearly set out in relation to each qualification in the defined qualification structures provided in this document.

In qualifications each unit's credit value usually consists of multiples of credits. Most units are 10 credits in value. These units have been designed from a learning time perspective. Each 10 credit unit approximates to a learning time of 14 hours.

National Diplomas which were accredited onto the National Qualifications Framework (NQF). Therefore, it is expected that these EQF Level 5, accredited onto the Qualifications and Credit Framework (QCF), will also require approximately 600 guided learning hours (GLH) for the qualification.

Guided learning hours are defined as all the time when a tutor, trainer or facilitator is present to give specific guidance towards the learning aim being studied on a programme. This definition includes lectures, tutorials and supervised study in; for example, open learning centres and learning workshops. It also includes time spent by staff assessing learners' achievements. It does not include time spent by staff in day-to-day marking of assignments where the learner is not present.

Learning time is defined as the time taken by learners at the level of the unit, on average, to complete the learning outcomes of the unit to the standard determined by the assessment criteria. It should address all learning (including assessment) relevant to the learning outcomes, regardless of where, when and how the learning has taken place.

Centres are advised to consider this definition when planning the programme of study associated with this specification.

### Mode of delivery

EQF does not define the mode of study for Aquaculture or Sports Fisheries level 5 qualifications.

Centres are free to offer the qualification(s) using any mode of delivery that meets the needs of their learners. This may be through traditional classroom teaching, open learning, distance learning or a combination of these. Whatever mode of delivery is used, centres must ensure that learners have appropriate access to the resources identified in the specification and to the subject specialists delivering the units. This is particularly important for learners studying for the qualification through open or distance learning.

Full guidance on our policies on 'distance assessment' and 'electronic assessment' are given on our website.

Learners studying for the qualification on a part-time basis bring with them a wealth of experience that should be utilised to maximum effect by tutors and assessors. Assessment instruments based on learners' work environments should be encouraged.

by:

- liaising with employers to ensure that the course is relevant to learners' specific needs
- accessing and using non-confidential data and documents from learners' workplaces
- including sponsoring employers in the delivery of the programme and, where appropriate, in the assessment
- linking with company-based/workplace training programmes
- making full use of the variety of experiences of work and life that learners bring to the programme.

## **Resources**

Qualifications are designed to prepare learners for employment in specific industry sectors. Physical resources need to support the delivery of the programme and the proper assessment of the outcomes and, therefore, should normally be of industry standard. Staff delivering programmes and conducting the assessments should be familiar with current practice, legislation and standards used in the sector concerned.

Centres will need to meet any specialist resource requirements when they seek approval from their own authorities.

Please refer to the Essential requirements section in individual units for specialist resource requirements.

## **UNITS**

### **Delivery approach**

It is important that centres develop an approach to teaching and learning that supports the specialist vocational nature of the EQF qualification. Specifications contain a balance of practical skill development and knowledge requirements, some of which can be theoretical in nature. Tutors and assessors need to ensure that appropriate links are made between theory and practice and that the knowledge base is applied to the sector. This will require the development of relevant and up-to-date teaching materials that allow learners to apply their learning to actual events and activities within the sector. Maximum use should be made of the learner's experience.

### **Meeting local needs**

Centres should note that the qualifications set out in these specifications have been developed in consultation with centres, employers and the Sector Skills Council (SSC) for the aqua cultural- or Sports Fishery sector.

The units are designed to meet the skill needs of the sector and the specialist units allow coverage of the full range of employment within the sector. Centres should make maximum use of the choice available to them within the specialist units to meet the needs of their learners, as well as the local skills and training needs identified by organisations and local funding agencies.

### **Locally-devised specialist units**

There may be exceptional circumstances where even the flexibility of importing units from other specifications does not meet a particular local need. In this case, centres can seek permission from their own National agencies to develop a unit(s) with us to meet this need. Permission will be granted only in a limited number of cases.

The National agencies will ensure that the integrity of the qualification is not compromised and that there is a minimum of overlap and duplication of content of existing units. Centres will need strong evidence of the local need and the reasons why the existing standard units are inappropriate.

The Units have to be validated.

### **Limitations on variations from standard specifications**

The flexibility to import standard units from other EQF specifications and/or to develop unique locally-devised specialist units is limited to a maximum of 20 credits.

Mandatory core units cannot be changed.

## Access and recruitment

Policy regarding access to our qualifications is that:

- qualifications should be available to everyone who is capable of reaching the required standards.
- qualifications should be free from any barriers that restrict access and progression.
- there must be equal opportunities for everyone wishing to access the qualification.

Centres are required to recruit learners to the qualifications with integrity. This will include ensuring that applicants have appropriate information and advice about the qualifications and that the qualification will meet their needs. Centres should take appropriate steps to assess each applicant's potential and make a professional judgement about their ability to successfully complete the programme of study and achieve the qualification. This assessment will need to take account of the support available to the learner within the centre during their programme of study and any specific support that might be necessary to allow the learner to access the assessment for the qualification. Centres should also show regard for learners with particular requirements.

Centres will need to review the profile of qualifications and/or experience held by applicants, considering whether this profile shows an ability to progress to level 5 qualifications. For learners who have recently been in education, the entry profile is likely to include one of the following:

- a EQF level 4 qualification in aquaculture or Sports Fisheries
- other related EQF level 4 qualifications
- an Access to Higher Education Certificate awarded by an approved further education institution
- related work experience.

Mature learners may present a more varied profile of achievement that is likely to include extensive work experience (paid and/or unpaid) and/or achievement of a range of professional qualifications in their work sector.

### Restrictions on learner entry

The EQF Level 5 qualifications are accredited for learners aged 18 years and over.

### Access arrangements and special considerations

Policy on access arrangements and special considerations for EQF qualifications aims to enhance access to the qualifications for learners with disabilities and other difficulties without compromising the assessment of skills, knowledge, understanding or competence. Further details are given on our website.

## Useful publications

Further copies of this document and related publications can be obtained from:

### How to obtain National and International Occupational Standards

#### Rationale

The EQF qualifications in Aquaculture and Sports Fisheries have been designed to focus on:

- the education and training for a range of careers in aquaculture and sports fisheries and allied industries.
- opportunities for those employed within these industries to achieve a internationally recognised higher level vocationally specific qualification.
- opportunities for full-time learners to gain a internationally recognised vocationally specific higher level qualification to enter employment within these industries at supervisory or management level or to progress to higher education vocational qualifications such as a full-time degree in aquaculture or Sports Fisheries or a related subject area.



- expansion of the knowledge, understanding and skills of learners working a fish farm or Sports fishing industry or allied industry supervisor's or manager's viewpoint.
- opportunities for learners to concentrate on the development of higher-level skills in a context, and how their role and that of their business fits within the overall structure of the aquaculture or sports fisheries industries, the national and international economy and the global overview
- opportunities for learners to develop a range of skills, techniques and attributes essential for successful performance in working life.

### **Aims of the qualification**

This qualification meets the needs of the above rationale by:

- equipping individuals with knowledge, understanding and skills for successful employment in the aquaculture or sports fisheries and allied industries.
- enabling progression to an undergraduate degree or further professional qualifications in related areas.
- providing opportunities for specialist study relevant to individual vocations and contexts.
- developing the individual's ability in the aquaculture or sports fisheries and allied industries through effective use and combination of the knowledge and skills gained in different parts of the programme.
- developing a range of skills and techniques, personal qualities and attributes essential for successful performance in working life and thereby enabling learners to make an immediate contribution to employment.
- providing flexibility, knowledge, skills and motivation as a basis for future studies and career development in the aquaculture or sports fisheries and allied industries.

### **Mandatory curriculum**

The mandatory curriculum will give learners the opportunity to build on previous attainment while allowing them to progress and study a selection of optional curriculum. It will display the following features:

- understand and apply business management, eg record-keeping, and planning techniques; human resource management, roles and responsibilities; financial management and analysis of performance; resource management; health and safety management; external factors; marketing; organisational impact on the environment; waste management techniques, legislation and benefits; environmental management techniques, organisations, policies and legislation
- use of project management; implement a project plan including evaluation and review; importance of communications and presentation in project management; importance of identifying various sources and types of information; use of sector-specific software packages for the management, collection, analysis and use of information; ICT skills used to obtain information from electronic sources and synthesise information.
- understand basic evolution; classification methods; cell biology; anatomy and physiology of fish; structure and physiology of water plants; homeostasis; reproductive strategies; nutrition; growth and development; homeostatic mechanisms; disease diagnosis and treatment.
- understand and apply handling techniques; housing requirements; feeding systems and strategies; animal welfare requirements and legislation; transportation systems; stocking densities; recording systems
- use of basic statistical techniques to support a range of experimental and production situations: reinforcement of numeracy requirements to ensure accuracy and precision in production and survey management

### **Optional curriculum**

The optional curriculum will give learners the opportunity to explore selected specialised areas of study. It will display the following features:

- undertake real work experience within a business or organisation; practical health and safety; resource management; assist in aspects of supervisory and management practices

overseeing various aspects of the working environment, eg financial management, production systems, customer care, environmental management.

develop and apply knowledge of the principles of sustainability; the development of international conventions regarding sustainability; governmental and industrial responses to international conventions; individual responses to the principles of sustainable development.

extend and apply knowledge gained in the essential core curriculum by developing the learner's knowledge of animal nutrition; genetics; breeding; anatomy and physiology; and adaptation to cover fish, in particular species, breeds and varieties kept in Europe; knowledge of animal behaviour; methods of interpretation; functional behaviour; the implications of behavioural types; the place of fish in human society; the interactions between humans and fish; symptoms of ill health in fish; management costs; health and safety; relevant legislation.

extend and apply knowledge gained in the core curriculum by developing the learner's knowledge of exotic fish, production fish, wildlife, aquatics and animals in collections; the range and adaptations of animals, their biological and physical requirements and management; fish health and welfare issues, requirements and support; sources of fish; types of establishment; health and safety; relevant legislation.

develop and apply knowledge of the structure of genetic material; heredity mechanisms; techniques used to manipulate genetic material; the environmental impacts of biotechnology.

develop and apply knowledge of the global and national animal industry and trade; the status of the in Europe; sources of animals; methods of breeding, capturing, transporting and marketing animals; relevant international legislation; the ethics of keeping animals in captivity, as pets, as farm fish or for experimentation; animal welfare organisations.

extend and apply knowledge gained in the core curriculum by developing the learner's knowledge of fish health and fish nursing; deeper understanding of fish anatomy and physiology; the aetiology of common disease organisms; environmental factors affecting health; diagnosis, nursing, handling and treatment techniques; fish welfare issues; equipment and facilities; economics; health and safety; relevant legislation.

develop and apply knowledge of human teaching and learning methods; factors affecting effective learning; communication skills; teaching and learning qualifications.

### **Entry prerequisites**

There are no particular entry requirements for these qualifications. Learners who enter with at least one of the following are likely to benefit more readily from these programmes:

a National qualification in Animal Management, Nature and Forest Management, Retail Management or related subjects.

at least 3 years of relevant work experience.

## Higher level skills and abilities

Learners will be expected to be able to do the following during the programme of study:

- analyse, synthesise and summarise information critically
- read and use appropriate literature with a full and critical understanding
- think independently, solve problems and devise innovative solutions
- take responsibility for their own learning and recognise their own learning style
- apply subject knowledge and understanding to address familiar and unfamiliar problems
- design, plan, conduct and report on investigations
- use their knowledge, understanding and skills to evaluate and formulate evidence-based arguments critically and identify solutions to clearly defined problems of a general routine nature
- communicate the results of their study and other work accurately and reliably using a range of specialist techniques
- identify and address their own major learning needs within defined contexts and to undertake guided further learning in new areas

