



Higher National Unit specification

General information for centres

Unit title: Specialist Animal Care: Ornamental Fish

Unit code: F3VC 34

Unit purpose: This Unit provides knowledge and understanding of the care of the common species of ornamental fish kept in the UK. It also allows candidates to develop an understanding of current legislation in this area and provides the underpinning knowledge needed to work in the aquatics industry. On completion of this Unit the candidate should be able to:

- 1 Explain the internal and external features of ornamental fish.
- 2 Explain and apply the care requirements of ornamental fish.
- 3 Describe legislative influences on the ornamental fish aquatics industry.

Credit points and level: 1 HN credit at SCQF level 7: (8 SCQF credit points at SCQF level 7*)

**SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

Recommended prior knowledge and skills: Access to this Unit will be at the discretion of the centre. However, it would be beneficial for candidates to have a practical knowledge of fish care, and to have completed *Small Animal Husbandry: Ornamental Fish Care* (D7EE 11) prior to undertaking this Unit.

Core Skills: This Unit may provide opportunities to develop the Core Skills of *Problem Solving* and *Working with Others*; and the written component of the Core Skill of *Communication* all at SCQF level 5, although there is no automatic certification of Core Skills or Core Skills components.

Context for delivery: If this Unit is delivered as part of a Group Award, it is recommended that it should be taught and assessed within the subject area of the Group Award to which it contributes.

Assessment: This Unit is assessed by a combination of closed-book assessments, reports, identification tests using diagrams or live specimens, and practical performance evidence.

Higher National Unit specification: statement of standards

Unit title: Specialist Animal Care: Ornamental Fish

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The sections of the Unit stating the Outcomes, Knowledge and/or Skills, and Evidence Requirements are mandatory.

Where evidence for Outcomes is assessed on a sample basis, the whole of the content listed in the Knowledge and/or Skills section must be taught and available for assessment. Candidates should not know in advance the items on which they will be assessed and different items should be sampled on each assessment occasion.

Outcome 1

Explain the internal and external features of ornamental fish

Knowledge and/or Skills

- ◆ Ornamental Fish species
- ◆ External anatomical features
- ◆ Internal anatomical features
- ◆ Anatomical functions

Evidence Requirements

Candidates will need to provide evidence to demonstrate their Knowledge and/or Skills by showing that they can:

- ◆ identify the main ornamental fish species commonly kept in the UK. The identification must include: seven species from ten tropical fresh water groups, four species from five cold water groups and four species from five tropical marine groups.
- ◆ explain the function of at least five external anatomical features using at least two ornamental fish species. The explanation must include the tail fin, dorsal fin, scales, operculum and lateral line.
- ◆ explain the function of at least six internal anatomical features of at least two ornamental fish species. The explanation must include at least six from the following: gills, heart, liver, kidney, stomach, intestine, swim bladder, spinal chord and should also include reference to how the functions of the features interrelate with each other.

Assessment must be conducted under closed-book, supervised conditions.

Assessment Guidelines

The closed-book assessment could comprise short answer questions. Live specimens or diagrams could be used for identification of ornamental fish and for the identification of external and internal features.

Higher National Unit specification: statement of standards (cont)

Unit title: Specialist Animal Care: Ornamental Fish

Outcome 2

Explain and apply the care requirements of ornamental fish

Knowledge and/or Skills

- ◆ Water quality
- ◆ Feeding requirements
- ◆ Advantages and Disadvantages of Feeds
- ◆ Common diseases and health problems
- ◆ Aquarium and ornamental pond requirements
- ◆ Routine maintenance
- ◆ Health and Safety
- ◆ Zoonoses

Evidence Requirements

Candidates will need to provide evidence to demonstrate their Knowledge and/or Skills by showing that they can:

- ◆ explain the requirements for the set up of an aquarium or ornamental pond for the three ornamental fish groups identified in Outcome 1. This must include filtration requirements, heating, lighting, fish population, plant and substrate requirements.
- ◆ set up an aquarium or ornamental pond correctly for at least one of three ornamental fish groups identified in Outcome 1.
- ◆ explain how water quality is monitored in an aquarium or pond for the three ornamental fish groups identified in Outcome 1. The explanation must cover as a minimum, water temperature, nitrogen, ph and saline levels
- ◆ explain the feeding requirements and the advantages and disadvantages of different feeds for the three ornamental fish groups identified in Outcome 1.
- ◆ describe the causes and clinical signs of at least one disease condition or health problem for each of the three ornamental fish groups identified in Outcome 1. The disease conditions must include common ectoparasites, common endoparasites, common fungi, common bacterial diseases and viral diseases. Health conditions must include those associated with water quality, nutrition and handling.
- ◆ explain two methods of disease control for three ornamental fish groups identified in Outcome 1. The explanation must include two from the following: chemical control, water quality management, isolation, quarantine and nutrition.
- ◆ maintain an aquarium and ornamental pond for at least one of the three ornamental fish groups identified in Outcome 1. This must include feeding requirements, water monitoring and any corrective actions taken to maintain optimum conditions over a period of at least three weeks. Health and safety procedures and the management of zoonoses must be included.

With the exception of the practical Evidence Requirements, this Outcome must be assessed under closed-book, supervised conditions.

Higher National Unit specification: statement of standards (cont)

Unit title: Specialist Animal Care: Ornamental Fish

Assessment Guidelines

Assessment could comprise short answer questions designed to explore the theoretical aspects of the Outcome. A practical checklist for aquarium/pond set up and maintenance could be used and candidates could be encouraged to maintain a logbook over the monitoring and maintenance period.

Outcome 3

Describe legislative influences on the ornamental fish aquatics industry

Knowledge and/or Skills

- ◆ Aquatics Industry
- ◆ Current legislation

Evidence Requirements

Candidates will need evidence to demonstrate their Knowledge and/or Skills by showing they can:

- ◆ describe the three sectors of the aquatics industry in the UK (cold water, tropical fresh water, and tropical marine.) The description must include the major differences between the sectors and must state at least two examples of fish species in each sector.
- ◆ describe the influence of current legislation for the industry. Descriptions must make reference to at least two separate pieces of legislation.

Assessment Guidelines

Assessment could comprise a short report on a given scenario within the aquatics industry where candidates describe relevant current legislation and the implications of that legislation for the aquatics industry.

Administrative Information

Unit code: F3VC 34

Unit title: Specialist Animal Care: Ornamental Fish

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Higher National Unit specification: support notes

Unit title: Specialist Animal Care: Ornamental Fish

This part of the Unit specification is offered as guidance. The support notes are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 40 hours.

Guidance on the content and context for this Unit

This Unit is intended for candidates who are working in or seeking a career in the animal care industry, or for anyone with an interest in the specialist care of ornamental fish. The teaching and learning should be delivered in this context. Health and safety procedures should always be followed, for example, when considering handling and zoonoses.

Additional information relating to each Outcome is given below:

Outcome 1

This Outcome covers the identification of the external and internal features of a fish, and a description of the function of structures and organs. This Outcome covers identification which will allow the candidate to become familiar with selected species of fish from the different groups: tropical fresh water, cold fresh water, tropical marine. The tutor should select a representative sample of some of the commoner or more important species from each group.

Outcome 2

This Outcome covers general husbandry, nutrition, pond and aquarium maintenance and the health of a range of species of ornamental fish. A sample of fish from each group could be chosen. The tutor could choose a selection of species from each group to ensure that candidates understand the different husbandry requirements of each group.

Candidates should develop a good knowledge of the different types of feed for the different fish groups and the methods of giving feed in this Outcome. As far as possible they should have the opportunity to develop the practical experience of feeding different species of fish. The advantages and disadvantages of some types of diet should be discussed.

An awareness of aquarium/pond design, and environmental conditions such as water quality should also be included. Health and disease should include the diseases and conditions of major importance.

Common ectoparasites could include white spot, gill fluke, fish louse, Chilodonella, Trichodina, Ichthyobodo, Oodinium.

Common endoparasites could include nematodes, Hexamita, Plistophora.

Common fungi could include Saprolegnia, Branchiomyces, Ichthyophonus. Bacterial diseases to include Myxobacteria, Mycobacteria, Aeromonas, Pseudomonas.

Viral diseases could include Lymphocystis, KHV, SVC.

Non infectious disease to include water quality, nutrition and handling.

Tutors should include any other appropriate conditions.

Higher National Unit specification: support notes (cont)

Unit title: Specialist Animal Care: Ornamental Fish

Outcome 3

Candidates could research the three sectors of the aquatics industry in the UK, namely cold fresh water, tropical fresh water and tropical marine, and produce a report on the major differences using examples of fish species.

This Outcome covers important aspects of current legislation relevant to the keeping of the species mentioned. Legislation should be up to date and incorporate any new changes that are introduced at a later date.

The following legislation could be covered: C.I.T.E.S, Wildlife and Countryside Act 1981, The Animal Health Act 1981, The Abandonment of Animals Act 1996, The Pet Animals Act 1951, Importation of Animals Order 1977.

Guidance on the delivery and assessment of this Unit

This Unit is likely to be part of a Group Award designed to provide candidates with the ability to work in the animal care industry. It could also be delivered as a standalone Unit for those wishing to improve their knowledge and understanding of ornamental fish.

There is a practical component to this Unit. Candidates will have to look after fish to ensure that they have the practical skills to complement the theoretical knowledge gained.

Photographs, videos, slides, visits to specialist facilities and presentations by visiting speakers could all enhance delivery. This will reinforce learning and widen the candidates' range of experience.

The first Outcome is designed to introduce candidates to different species of ornamental fish and the external and internal features and functions of those features for a range of species. Visits to aquariums and other aspects of the industry could be used to increase candidate confidence and knowledge in the preparation for the assessment. The assessment is best served as a closed-book assessment with short answer questions. Live specimens or diagrams could be used for identification of different species from the three groups ie tropical freshwater, cold water and tropical marine groups.

The second Outcome is both practical and knowledge-based. Candidates are provided with knowledge of the different husbandry and feeding requirements of different species of fish chosen from the three groups identified earlier. They are required to describe the causes and clinical signs of common diseases and health problems across the three groups, and this is assessed under closed-book conditions, with short answer questions recommended. For the practical assessment, candidates will need to have access to either a pond or aquarium to allow monitoring, feeding and maintenance skills to be demonstrated. This may be evidenced through the development of observational checklists and by asking candidates to maintain a logbook over a period of three weeks. Due to limited access to aquaria or ponds, centres may wish to use group work for this aspect of the Outcome. If group work is used, centres must ensure the authenticity of the work and may wish to use questioning in addition to the suggested logbook and checklists.

Higher National Unit specification: support notes (cont)

Unit title: Specialist Animal Care: Ornamental Fish

For the third Outcome candidates could be encouraged to research the three sectors of the industry and the current legislation requirements upon the industry. A report based on a given scenario in the aquatics industry could be used to evidence understanding of the key issues.

Opportunities for developing Core Skills

This Unit may provide opportunities to develop the Core Skills of *Problem Solving* and *Working with Others*; and the written component of the Core Skill of *Communication* all at SCQF level 5, although there is no automatic certification of Core Skills or Core Skills components.

Should candidates provide response to the scenario provided in Outcome 3 in the form of a report, then this may provide opportunities to develop the written component of the Core Skill of *Communication* at SCQF level 5.

The practical component in Outcome 2 will require candidates to demonstrate practical problem solving skills in the maintenance and the setting up of an aquarium or pond. Outcome 3 requires candidates to conduct research and investigate a given scenario. Should the scenario represent a problem of solving situation requiring the interpretation and application of the impact of legislative requirements, this may develop the Core Skill of *Problem Solving* at SCQF level 5.

The practical component of Outcome 2 may involve candidates working as part of a team in negotiating access to and working on the maintenance and/or setting up of an aquarium or pond. In this case, this may provide the opportunity to develop the Core Skill of *Working with Others* at SCQF level 5.

Open learning

If this Unit is delivered by open or distance learning methods, additional resources will be required for candidate support, assessment and quality assurance. The practical aspects of the Unit may engender some difficulties in delivering this Unit through Open Learning.

Candidates with disabilities and/or additional support needs

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering alternative Outcomes for Units. Further advice can be found in the SQA document *Guidance on Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs* (www.sqa.org.uk).

General information for candidates

Unit title: Specialist Animal Care: Ornamental Fish

This Unit is intended to help prepare you for work in the animal care industry but is equally valuable if you have an interest in ornamental fish care.

The Unit has three main areas, with each comprising a separate Outcome.

Initially, you will study the anatomy and physiology of fish. Outcome 1 will enable you to recognise a variety of different species of ornamental fish from the three main groups of cold water, tropical freshwater and tropical marine. An understanding of the different species and their external and internal features will assist in Outcome 2 and is especially useful when studying health and disease.

The second Outcome is fish husbandry and covers holding Units (aquariums and ponds), handling, nutrition, water quality, health and disease. There will be an emphasis on health and safety, especially in the areas of handling and zoonoses. You will also have to care for an aquarium or an ornamental pond and demonstrate that you have the relevant practical skills to set them up and maintain them.

In the third Outcome you will gain knowledge of the current legislation in the different sectors of the ornamental fish aquatics industry which is an essential component if you choose to pursue your career in this field.

You are advised to gain as much practical experience as possible. Visits or voluntary work would allow you to increase both your practical skills and knowledge and understanding of the many different aspects of fish care. Working in an aquatics shop or on an ornamental fish farm could provide excellent practical experience.

To complete this Unit successfully you will have to achieve a satisfactory level of performance in the knowledge and practical assessments. The assessment for Outcome 1 will be under closed-book conditions and will require you to identify different species within the three main ornamental fish groups as well as identifying the main features of ornamental fish. For Outcome 2 your knowledge will be assessed under closed-book conditions in addition to assessment of your practical skills. In the final Outcome you will research the different sectors of the aquatics industry and the impact of legislation on these industries.

This Unit may also provide you with the opportunity to develop the written component of the Core Skill of *Communication* at SCQF level 5. Should you complete a report in response to Outcome 3, this will develop written communication skills. The practical nature of the Unit may also provide you with the opportunity to develop the Core Skill of Problem Solving at SCQF level 5. The Core Skill of *Working with Others* at SCQF level 5 may be developed as it is likely that you will work as part of a group when performing practical skills such as pond/aquarium maintenance.