



IFM Certificate Module Descriptions

1. Water Quality

By the end of this module you will be enabled, as demonstrated through completion of exams, to:

1. Outline the basic properties and natural characteristics of water of particular importance fish and other aquatic organisms (Chapter 1)
2. Describe how water quality is affected naturally by interacting hydrogeomorphological and biological factors that produce different types of ecosystems, zones and characteristic fish communities in rivers, estuaries and lakes (Chapter 2).
3. Define what is meant by pollution and outline the principal types, causes and effects on fish, direct and indirect (Chapter 3).
4. Outline some key EU and UK legislation and management principles and options available to protect aquatic environments and fisheries (Chapter 4)

2. Freshwater and Fish Biology

By the end of this module you will be enabled, as demonstrated through completion of exams, to:

1. Describe the basic common features of living things and the differences between plants and animals
2. Understand and describe the basic anatomy of fish and the key differences between the most common groups of fish in the British Isles
3. Understand and describe why nutrients and chemicals are important to freshwater biology and how they are recycled
4. Describe the different types of aquatic plants and how and why they are important to freshwater ecosystems and fisheries management
5. Describe the different types of aquatic invertebrates and how and why they are important to freshwater ecosystems and fisheries management
6. Describe basic food webs and the interaction between different types of organisms in the aquatic environment

7. Understand why a knowledge of Freshwater Biology is essential to fisheries management

3. Fishery Law

By the end of this module you will be enabled, as demonstrated through completion of exams, to:

1. Understand and describe the main provisions of the Salmon and Freshwater Fisheries Act, 1975.
2. Be able to interpret sections of this Act, especially in relation to their effects on fishery owners, occupiers and managers, and fishermen.
3. Have an understanding of other significant fisheries legislation such as The Keeping and Introduction of Fish (England and River Esk Catchment Area) Regulations 2015 and The Eels (England and Wales) Regulations 2009. If you are not based in England and Wales you will be expected to gain understanding of similar legislation on your own region or country.
4. Have an understanding of other legislation that relates to fisheries management.

4. Fish Culture and Husbandry

Fish farming is an important part of fisheries management, particularly with the restocking of fish following pollution incidents and trying to improve or develop angling facilities. The understanding of fish farming is therefore important for any fisheries manager and this module is designed to inform student about the main types of farming in the UK, and their relevance to fisheries management.

By the end of this module you will be enabled, as demonstrated through completion of exams, to:

1. Describe the production cycles and biological requirements of the major farmed species in the UK.
2. Understand the artificial propagation of Salmon and carp.
3. Describe the tagging and marking of fish and the production of triploid salmonids.
4. Outline the various stocking methods for Salmon

5. Fisheries Maintenance, Monitoring and Improvements

This section deals with the practical measures available to a fishery manager to maintain or improve the physical condition of a fishery and the fish in it. We'll look at methods to improve conditions for fish and techniques to improve facilities and catches for anglers. This is a key module of the Certificate course as it describes practical measures that can be taken to improve a fishery, using knowledge from each of the other sections of the course.

This section should enable you to describe

1. Different types of fisheries found in the British Isles
2. Main environmental requirements of fish in those fisheries
3. Methods available to improve the fish holding, or production capacity of a water
4. Techniques that can be used to improve facilities for anglers
5. Methods available to monitor and assess the degree of success of any improvements
6. Legal requirements and political considerations around fisheries management

6. Angling and Recreation

This unit is often a favourite of those taking the Certificate course if they have come to fishery management through angling as a hobby. The successful fishery manager must appreciate the different types of anglers and their interests along with the needs of other users such as walkers and boaters.

This module gives you the skills and knowledge to operate confidently in this sector of the industry.

7. Fisheries Enforcement

By the end of this module you will be enabled, as demonstrated through completion of exams, to:

1. Outline the role and limits of the various persons that may be called a Water Bailiff (Chapter 1) and define the behaviours of an effective bailiff (Chapter 2).
2. Describe the responsibilities of the employer and employee to minimise the risk associated with fisheries enforcement. Discuss the tools a Bailiff has at their disposal to work safely (Chapter 3).
3. Understand how a bailiff's routine and relationship with the local fishing community enable them to work effectively (Chapter 4).
4. Carry out a risk assessment for a fishery, considering potential access, theft and sale of fish (Chapter 5) and outline how to counteract these risks (Chapter 6).

8. Fish health and Welfare

By the end of this module you will be enabled, as demonstrated through completion of exams, to:

1. Understand and describe the link between fish health and fish welfare
2. Describe the main groups of parasites and pathogens likely to infect fish in the UK.
3. Define many of the terms associated with welfare, disease and mortalities in fish.
4. Understand the main steps managers can take to investigate and manage a fish mortality.
5. Understand the legislative framework surrounding fish health and disease.