



## **Module Specification**

### **Ecology and Ecosystem Protection**

Version: 2023-24, v3.0, 28 Mar 2023

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## Part 1: Information

**Module title:** Ecology and Ecosystem Protection

**Module code:** USSK5F-30-2

**Level:** Level 5

**For implementation from:** 2023-24

**UWE credit rating:** 30

**ECTS credit rating:** 15

**Faculty:** Faculty of Health & Applied Sciences

**Department:** HAS Dept of Applied Sciences

**Partner institutions:** None

**Field:** Applied Sciences

**Module type:** Module

**Pre-requisites:** Life on Earth 2023-24

**Excluded combinations:** None

**Co-requisites:** None

**Continuing professional development:** No

**Professional, statutory or regulatory body requirements:** None

## Part 2: Description

**Overview:** Not applicable

**Features:** Not applicable

**Educational aims:** This module introduces the students to the basic principles of ecology, and then explores the application of these principles in relation to habitat and ecosystem management and protection.

**Outline syllabus:**

## Principles of ecology:

Food chains and webs, energy flows and nutrient cycles; principles of population dynamics including population regulation; mutualism, competition, herbivory, predator-prey relationships; intra- and inter-specific competition and niche theory; community ecology and succession; global biodiversity and the factors affecting its distribution; major biomes. Concepts of naturalness in relation to ecosystems.

## Human impacts on ecosystems:

General causes of habitat destruction and habitat disturbance including pollution, climate change, introduced species and over-exploitation. Effects of habitat disturbance especially pollution. Climate Change – evidence for impacts on ecosystems including phenology and range changes; possible future impacts on global biomes. Restoration of degraded habitats and creation of new habitats including translocation. Ecological impacts of introduced species.

## Ecosystems management:

The structure and function of a range of habitats in Britain including woodland, grassland, heathland, wetlands and coastal habitats. Current threats and appropriate management strategies. Management plans in principle and practice.

## Ecosystem Protection:

Concepts of wildlife protection through land protection; types of land protection at a national and international level; the effectiveness of current land protection policy in the UK and internationally.

**Part 3: Teaching and learning methods**

**Teaching and learning methods:** See outline syllabus and assessment strategy.

**Module Learning outcomes:** On successful completion of this module students will achieve the following learning outcomes.

**MO1** Describe in detail the ecological principles that have shaped the living world

**MO2** Apply their understanding of ecological principles to real world problems of ecosystem management across a range of habitat types in the British Isles

**MO3** Recommend appropriate ecosystem management regimes for a range of habitat types, including techniques for monitoring and evaluating their effectiveness

**MO4** Evaluate the effectiveness of current ecosystem protection in conserving wildlife and ecosystem function

**MO5** Obtain, record and interpret data using appropriate techniques in the field and laboratory, and the access and analysis of secondary data sources

**Hours to be allocated:** 300

**Contact hours:**

Independent study/self-guided study = 228 hours

Face-to-face learning = 72 hours

Total = 300

**Reading list:** The reading list for this module can be accessed at [readinglists.uwe.ac.uk](https://uwe.rl.talis.com/modules/ussk5f-30-2.html) via the following link <https://uwe.rl.talis.com/modules/ussk5f-30-2.html>

## **Part 4: Assessment**

**Assessment strategy:** The assessment is designed to test the students' breadth and depth of understanding of ecological principles, and how these underpin key areas of ecosystem protection in practice. In addition the assessment provides a framework for students to extend their knowledge and practical skills in relation to ecosystem management, particularly through the compilation of a management plan, which is a key tool in practical ecosystem management.

Assessment Task 1

The Online exam (with 24hr window for submission) tests a student's factual ecological knowledge, as well as exploring their depth of understanding of key ecological concepts and of ecosystem protection.

### Assessment Task 2

The coursework involves the student in a range of activities including: acquisition of information from a wide range of sources; analysis and interpretation of primary and secondary data; timetabled fieldwork surveys of specific habitats/communities, development of detailed objectives and prescriptions for the management of a specified habitat and the production of a consultant's report. Aspects of this work will be undertaken in a group context.

Students also have the opportunity to informally discuss their coursework plans with an academic member of staff.

In addition to the above, opportunities for formative feedback are built into the practical classes and workshops, and through the review of past exam papers.

### **Assessment tasks:**

#### **Examination (Online)** (First Sit)

Description: Online examination (24 hours)

Weighting: 50 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO4

#### **Written Assignment** (First Sit)

Description: Written Report (3500 words)

Weighting: 50 %

Final assessment: No

Group work: Yes

Learning outcomes tested: MO2, MO3, MO5

**Examination (Online) (Resit)**

Description: Online examination (24 hours)

Weighting: 50 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO4

**Written Assignment (Resit)**

Description: Written report (3500 words)

Weighting: 50 %

Final assessment: No

Group work: No

Learning outcomes tested: MO2, MO3, MO5

**Part 5: Contributes towards**

This module contributes towards the following programmes of study:

Environmental Science [Frenchay] BSc (Hons) 2022-23

Wildlife Ecology and Conservation Science [Frenchay] MSci 2022-23

Environmental Science [Sep][SW][Frenchay][4yrs] BSc (Hons) 2022-23

Environmental Science [Sep][FT][Frenchay][3yrs] BSc (Hons) 2022-23

Environmental Science [Frenchay] MSci 2022-23

Wildlife Ecology and Conservation Science [Zoo] BSc (Hons) 2022-23

Wildlife Ecology and Conservation Science {Foundation} [Sep][SW][Zoo][5yrs] BSc (Hons) 2021-22

Environmental Science {Foundation} [Sep][SW][Frenchay][5yrs] BSc (Hons) 2021-22

Environmental Science {Foundation} [Sep][FT][Frenchay][4yrs] BSc (Hons) 2021-22

Environmental Science {Foundation} [Sep][SW][Frenchay][6yrs] MSci 2021-22

Wildlife Ecology and Conservation Science {Foundation} [Sep][FT][Zoo][4yrs] BSc (Hons) 2021-22

Wildlife Ecology and Conservation Science {Foundation} [Sep][SW][Frenchay][6yrs] MSci 2021-22

Wildlife Ecology and Conservation Science {Foundation} [Sep][FT][Frenchay][5yrs] MSci 2021-22

Environmental Science {Foundation} [Sep][FT][Frenchay][5yrs] MSci 2021-22

Biological Sciences [Frenchay] MSci 2022-23

Biological Sciences [Frenchay] BSc (Hons) 2022-23

Biological Sciences {Foundation} [Sep][SW][Frenchay][6yrs] MSci 2021-22

Biological Sciences {Foundation} [Sep][FT][Frenchay][5yrs] MSci 2021-22

Biological Sciences {Foundation} [Sep][SW][Frenchay][5yrs] BSc (Hons) 2021-22

Biological Sciences {Foundation} [Sep][FT][Frenchay][4yrs] BSc (Hons) 2021-22