



Module Specification

Ecology and Ecosystem Protection

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Part 1: Information

Module title: Ecology and Ecosystem Protection

Module code: USSK5F-30-2

Level: Level 5

For implementation from: 2021-22

UWE credit rating: 30

ECTS credit rating: 15

Faculty: Faculty of Health & Applied Sciences

Department: HAS Dept of Applied Sciences

Partner institutions: None

Delivery locations: Frenchay Campus

Field: Applied Sciences

Module type: Standard

Pre-requisites: Life on Earth 2021-22

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.

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.

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 components:

Examination (Online) - Component A (First Sit)

Description: Online examination (24 hours)

Weighting: 50 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO4

Written Assignment - Component B (First Sit)

Description: Written Report (3500 words)

Weighting: 50 %

Final assessment: No

Group work: Yes

Learning outcomes tested: MO2, MO3, MO5

Examination (Online) - Component A (Resit)

Description: Online examination (24 hours)

Weighting: 50 %

Final assessment: Yes

Group work: No

Learning outcomes tested:

Written Assignment - Component B (Resit)

Description: Written report (3500 words)

Weighting: 50 %

Final assessment: No

Group work: No

Learning outcomes tested:

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Wildlife Ecology and Conservation Science [Sep][FT][Frenchay][4yrs] MSci 2020-21

Wildlife Ecology and Conservation Science {Foundation} [Sep][FT][Frenchay][5yrs]
MSci 2019-20

Wildlife Ecology and Conservation Science {Foundation} [Sep][SW][Frenchay][6yrs]
MSci 2019-20

Biological Sciences [Sep][FT][Frenchay][3yrs] BSc (Hons) 2020-21

Biological Sciences [Sep][SW][Frenchay][4yrs] BSc (Hons) 2020-21

Biological Sciences [Sep][FT][Frenchay][4yrs] MSci 2020-21

Biological Sciences [Sep][SW][Frenchay][5yrs] MSci 2020-21

Biological Sciences {Foundation} [Sep][FT][Frenchay][4yrs] BSc (Hons) 2019-20

Biological Sciences {Foundation} [Sep][SW][Frenchay][5yrs] BSc (Hons) 2019-20

Biological Sciences {Foundation} [Sep][SW][Frenchay][6yrs] MSci 2019-20

Biological Sciences {Foundation} [Sep][FT][Frenchay][5yrs] MSci 2019-20

