



## MODULE SPECIFICATION

Part 1: Information			
Module Title	Ecology and Ecosystem Protection		
Module Code	USSK5F-30-2	Level	Level 5
For implementation from	2020-21		
UWE Credit Rating	30	ECTS Credit Rating	15
Faculty	Faculty of Health & Applied Sciences	Field	Applied Sciences
Department	HAS Dept of Applied Sciences		
Module type:	Standard		
Pre-requisites	Life on Earth 2020-21		
Excluded Combinations	None		
Co- requisites	None		
Module Entry requirements	None		

Part 2: Description
<p><b>Educational Aims:</b> See Learning Outcomes</p> <p><b>Outline Syllabus:</b> 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.</p> <p>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.</p> <p>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.</p>

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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.

### **Teaching and Learning Methods:** Scheduled learning

Students can expect to spend 66 hours in a mixture of on-line interactive lectures, practicals and workshops, with a minimum of one face-to-face laboratory practical. On-line practicals and workshops are linked with the theory delivered through lectures, to support and extend student learning.

### Independent learning

Students are expected to spend 234 hours on independent learning tasks.

A variety of learning approaches are used. On-line practical and workshop sessions provide opportunities for data handling and interpretation, problem-solving, group working and discussions with academic staff. Interactive on-line lectures provide contexts and overviews of topics to guide student-centred learning. Student learning is supported by audio-visual material, specialist software packages, and computer modelling exercises. The University's on-line Learning Environment Blackboard is used to enhance the students' learning experience, including links to relevant on-line resources and background reading, facilities for interaction and coordination during group work (eg. wikis, blogs), and communication between tutors and students.

Scheduled learning includes: interactive on-line lectures, practical classes and workshops.

Independent learning includes hours engaged with essential reading, assignment preparation and completion.

## Part 3: Assessment

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 24 hour on-line exam 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 is divided into two elements. Component B1 comprises the compilation of the factual components of the Management Plan, which involves the student in a range of activities including: acquisition of information from a wide range of on-line and grey literature sources; analysis and interpretation of primary and secondary data; timetabled fieldwork including Phase One Habitat Survey and surveys of specific habitats/communities, supported by individual reflection and critical appraisal; and the production of a consultant's report. The majority of this work will be undertaken in a group context.

The second element of coursework (B2) is carried out individually and extends the students' understanding of the evaluation, management and protection of ecosystems. It may take a number of forms, including: more in-depth

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monitoring and evaluation of a given ecosystem, a more detailed and prescriptive management plan for given area, an assessment of ecosystem services; or an evaluation of the effectiveness of current protection for a given ecosystem or its species. Students have the opportunity to informally discuss their work with an academic member of staff during timetabled feed forward sessions, or remotely using Blackboard, e-mail, skype, or other social media vehicles.

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

All work is marked in line with the Department's Generic Assessment Criteria and conforms with university policies for the setting, collection, marking and return of student work. Where an individual piece of work has a specific assessment criteria, this is supplied to the students when the work is set.

First Sit Components	Final Assessment	Element weighting	Description
Report - Component B		30 %	Written report (2500 words)
Portfolio - Component B		20 %	Portfolio based on group work (1500 words)
Examination (Online) - Component A	✓	50 %	Online examination (24 hours)
Resit Components	Final Assessment	Element weighting	Description
Report - Component B		50 %	Written report (4000 words)
Examination (Online) - Component A	✓	50 %	Online examination (24 hours)

### Part 4: Teaching and Learning Methods

Learning Outcomes	On successful completion of this module students will achieve the following learning outcomes:													
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	<b>Scheduled Learning and Teaching Hours:</b>	
	Face-to-face learning	66
	<b>Total Scheduled Learning and Teaching Hours:</b>	66
	<b>Hours to be allocated</b>	300
	<b>Allocated Hours</b>	300
Reading List	<p>The reading list for this module can be accessed via the following link:</p> <p><a href="https://uwe.rl.talis.com/modules/ussk5f-30-2.html">https://uwe.rl.talis.com/modules/ussk5f-30-2.html</a></p>	

### Part 5: Contributes Towards

This module contributes towards the following programmes of study:

Environmental Science {Foundation} [Sep][SW][Frenchay][5yrs] BSc (Hons) 2018-19

Environmental Science {Foundation} [Sep][FT][Frenchay][4yrs] BSc (Hons) 2018-19

Wildlife Ecology and Conservation Science {Foundation} [Sep][FT][Zoo][4yrs] BSc (Hons) 2018-19

Wildlife Ecology and Conservation Science {Foundation} [Sep][FT][Frenchay][5yrs] MSci 2018-19

Wildlife Ecology and Conservation Science {Foundation} [Sep][SW][Frenchay][6yrs] MSci 2018-19

Environmental Science {Foundation} [Sep][FT][Frenchay][5yrs] MSci 2018-19

Environmental Science {Foundation} [Sep][SW][Frenchay][6yrs] MSci 2018-19

Wildlife Ecology and Conservation Science {Foundation} [Sep][SW][Zoo][5yrs] BSc (Hons) 2018-19

Biological Sciences {Foundation} [Sep][FT][Frenchay][4yrs] BSc (Hons) 2018-19

Biological Sciences {Foundation} [Sep][SW][Frenchay][5yrs] BSc (Hons) 2018-19

Biological Sciences {Foundation} [Sep][SW][Frenchay][6yrs] MSci 2018-19

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