



Module Specification

Environmental Sciences

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Part 1: Information

Module title: Environmental Sciences

Module code: USSKND-15-1

Level: Level 4

For implementation from: 2023-24

UWE credit rating: 15

ECTS credit rating: 7.5

Faculty: Faculty of Health & Applied Sciences

Department: HAS Dept of Applied Sciences

Partner institutions: None

Field: Applied Sciences

Module type: Module

Pre-requisites: None

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: See learning outcomes.

Outline syllabus: This module will cover the following topics within the area of environmental science:

Introduction to ecology: introduction to ecological principles, such as food chains and webs, essential nutrients, symbiosis, mutualism, intra- and inter-specific competition and niche theory. Components of ecosystems: biotic and abiotic, trophic levels, energy flows and nutrient cycles.

Principles of organism taxonomy and interactions between various kingdoms: classification and key features of plant, animal and microorganism groups; interactions and relationships between plant, animal and microorganisms in ecological systems.

Sampling strategies and data collection techniques: obtaining, recording and interpreting data using appropriate techniques in the field and laboratory.

Introduction to statistics for biology.

Part 3: Teaching and learning methods

Teaching and learning methods: This module aims to deliver specialist knowledge through taught lectures, tutorials, seminars, fieldwork and practical sessions. This will promote application of acquired knowledge, analytical and problem-solving skills.

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

MO1 Explain key ecological principles

MO2 Collect, record and interpret data using appropriate techniques in the field or/and laboratory

MO3 Evaluate the impact of human activities at a particular location on the biodiversity of the surrounding ecosystem

MO4 Demonstrate scientific communication skills through the presentation of experimental data in poster format

Hours to be allocated: 150

Contact hours:

Independent study/self-guided study = 105 hours

Face-to-face learning = 45 hours

Total = 150

Reading list: The reading list for this module can be accessed at [readinglists.uwe.ac.uk](https://uwe.rl.talis.com/modules/ussknd-15-1.html) via the following link <https://uwe.rl.talis.com/modules/ussknd-15-1.html>

Part 4: Assessment

Assessment strategy: Assessment 1 is a poster presentation on a practical ecological investigation, including data presentation and statistical analysis. This assessment will develop student's communication and scientific presentation skills, alongside analytical and practical skills.

Assessment 2 is an investigative report: students will complete a 2000 word report investigating the impact of human activity on an ecological area and its biodiversity. This assessment will provide a valuable learning experience through independent research of published literature and development of academic writing style.

Opportunities for formative feedback are built into teaching and practical sessions, through discussion and evaluation of current practice.

Assessment tasks:

Presentation (First Sit)

Description: Poster presentation

Weighting: 30 %

Final assessment: No

Group work: No

Learning outcomes tested: MO1, MO2, MO4

Report (First Sit)

Description: Investigative report (2000 words)

Weighting: 70 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO3

Presentation (Resit)

Description: Poster presentation

Weighting: 30 %

Final assessment: No

Group work: No

Learning outcomes tested: MO1, MO2, MO4

Report (Resit)

Description: Investigative report (2000 words)

Weighting: 70 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO3

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Biological Laboratory Sciences [UCW] FdSc 2023-24