Module Specification

Life on Earth

Version: 2025-26, v4.0, Approved

Contents

Part 1: Information

Module title: Life on Earth

Module code: USSK5C-30-1

Level: Level 4

For implementation from: 2025-26

UWE credit rating: 30

ECTS credit rating: 15

College: College of Health, Science & Society

School: CHSS School 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: This module introduces students to the plants, animals and micro-organisms that make up life on earth. They will learn how the living world is structured and classified, how organisms interact with one another and with their physical environment, and how that physical environment can affect their distribution, abundance, and even their structure and physiology.

Features: Not applicable

Educational aims: This module aims to educate students on the importance of the living world to mankind, from providing the life support system for our planet to being a cause of disease and death to human populations.

Outline syllabus: Principles of organism taxonomy; classification and key features of plant, animal and microorganism groups.

Introduction to plant biology: Photosynthesis, mineral nutrition and regulation of plant growth. Factors affecting plant distribution on a global and local scale. Human dependence on plants as the primary source of food, fuel and other products.

Introduction to animal biology: comparative animal physiology; the invertebrates and the vertebrates; gas exchange; water and solute balance. Adaptations for living in aquatic and terrestrial environments.

Introduction to microbiology: cultivation and control of microorganisms; microbial interactions including pathogenicity; food and industrial microbiology.

Population and evolutionary genetics: Genetic variation within populations and effects on gene pools and gene frequencies. Applications of the Hardy-Weinberg equilibrium. Gene frequencies and evolution. Forces of evolutionary change; how species arise and become extinct. Evidence for evolution, rates of evolution, Gradualism and punctuated equilibrium; "living fossils". The evolution of major taxonomic groups and the characteristics of important extant groups of plants and animals.

In addition, students are introduced to some of the key concepts in ecology, in the context of the organisms they are studying, including: population growth (microorganisms); essential nutrients and factors limiting growth (plants); symbiosis and mutualism (microorganisms).

Part 3: Teaching and learning methods

Teaching and learning methods: The module is delivered as a mixture of lectures, tutorials and practical classes.

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

MO1 Identify the key characteristics of major plant, animal and microorganism taxonomic groups and describe the responses of these groups to variations in selected environmental conditions.

MO2 Describe the roles and interactions of plants, animals and microbes in ecological systems, and their importance to human well-being.

MO3 Describe the modes of inheritance of characteristics and explain the mechanisms of evolutionary change as evidence for evolution.

MO4 Undertake field and laboratory investigations of living systems and Obtain, record and interpret data using appropriate techniques in a responsible, safe and ethical manner.

Hours to be allocated: 300

Contact hours:

Independent study/self-guided study = 228 hours

Face-to-face learning = 72 hours

Reading list: The reading list for this module can be accessed at readinglists.uwe.ac.uk via the following link https://uwe.rl.talis.com/modules/ussk5c-30-1.html

Part 4: Assessment

Assessment strategy: Assessment 1: Case Study (500 words maximum)
A Short Case Study on Microbiology and Evolution. This helps students to build their research and information synthesis skills, and develops their ability to communicate complex scientific information in a clear and succinct way.

Assessment 2: Online Examination (24 hours)

The examination is designed to test both the breadth of the student's subject knowledge and their understanding of key concepts.

Opportunities for formative assessment are embedded in the module teaching and take a variety of forms, including: in class and on-line tests and quizzes, problem-solving workshops, and model answers for past exam questions.

Assessment tasks:

Case Study (First Sit)
Description: 500 word case study.
Weighting: 40 %
Final assessment: No
Group work: No
Learning outcomes tested: MO3

Examination (Online) (First Sit)
Description: Online Examination (24 hours)
Weighting: 60 %
Final assessment: Yes
Group work: No
Learning outcomes tested: MO1, MO2, MO4

Case Study (Resit)
Description: 500 word case study
Weighting: 40 %
Final assessment: No
Group work: No
Learning outcomes tested: MO3

Examination (Online) (Resit)
Description: Online Examination (24 hours)
Weighting: 60 %
Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO2, MO4

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Environmental Science {Foundation} [Frenchay] BSc (Hons) 2024-25

Environmental Science {Foundation} [Frenchay] - WITHDRAWN MSci 2024-25

Wildlife Ecology and Conservation Science {Foundation} [Frenchay] - WITHDRAWN MSci 2024-25

Wildlife Ecology and Conservation Science {Foundation} [Frenchay] BSc (Hons) 2024-25

Biological Sciences {Foundation} [Frenchay] BSc (Hons) 2024-25

Biological Sciences {Foundation} [Frenchay] - WITHDRAWN MSci 2024-25

Biological Sciences [Frenchay] BSc (Hons) 2025-26

Environmental Science [Frenchay] BSc (Hons) 2025-26

Wildlife Ecology and Conservation Science [Frenchay] BSc (Hons) 2025-26