Module Specification

The Earth

Version: 2025-26, v3.0, Approved

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Part 1: Information

Module title: The Earth

Module code: USSJFB-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: Introduction to Earth System Science covering the core physical science concepts that are necessary for the study of Ecology and Environmental Science. The module explores the dynamic interactions between the atmosphere, hydrosphere, lithosphere and biosphere. Students will gain a foundational understanding of how these components interact to shape Earth's climate, landscapes, and ecosystems.

Features: Not applicable

Educational aims: This module aims to give students a foundational understanding of how these components interact to shape Earth's climate, landscapes, and ecosystems.

Outline syllabus: The indicative syllabus of the module is as follows:

Geoscience Paradigms:
The extent of geological time. Evolution: the history of life on Earth. Plate Tectonics. Geological time & rates of Earth processes. Major events in Earth's history. Historical environmental change.

Earth's Structure, Materials and Processes:
The study of structures, materials and processes ranging in scale from atoms to planets and nomenclature and classification of rocks and minerals. The chemical and physical composition of the lithosphere, hydrosphere and atmosphere. The chemical and physical processes operating within and between these spheres and their interconnectivity.

The Earth as a System:
The systems approach to environmental study and the structure and functioning of the Earth as a set of systems. The cycling of matter and the flows of energy into and within the Earth systems. The complexity and inter-relatedness of the Earth's systems. The role of the Earth's systems in supporting life and human activities.

Impacts:
The consequences for the environment of resource extraction and waste disposal arising from the fulfilment of human needs e.g. pollution, resource depletion and environmental change. Introduction to the major environmental issues facing the Earth system: limits to growth, sustainability and sustainable development.

Part 3: Teaching and learning methods

Teaching and learning methods: A variety of teaching and learning approaches will be employed. Practical sessions will provide 'hands-on' experience and will be used to under-pin the learning outcomes of this module. Practical and tutorial sessions also provide students the opportunity to acquire data handling and problem solving skills.

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

MO1 Demonstrate an awareness of the present and past interactions between components of the Earth system and describe the cycling of matter and the flows of energy into, between and within the solid Earth, hydrosphere, atmosphere and biosphere.

MO2 Appreciate the importance of the chemistry, physics, biology and mathematics that underpin our understanding of Earth structure, materials and processes.

MO3 Identify the contributions of the natural sciences to the identification of and understanding of environmental issues and concerns.

MO4 Demonstrate basic practical skills relevant to the environmental sciences.

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/ussjfb-30-1.html

Part 4: Assessment

Assessment strategy: Assessment 1: Portfolio
Online Practical Portfolio. Throughout the course students will undertake assessed laboratory workshops. The assessment will involve the submission of elements of

the practical portfolio, which will be used to develop and encourage a culture of continuous experiential learning.

Assessment 2: Online examination (24 hours)
The online examination will be used to assess the student's key knowledge and understanding of the core science in all aspect of geoscience including elements of chemistry, physics and biology. In addition to this, students will be assessed on their understanding of how key scientific theories relate the wider Earth system in the broader context of applied environmental science.

Formative feedback is available to students throughout the module through discussions particularly in tutorials and during the practical sessions. Students are provided with formative feed-forward from informal assessment of their laboratory workshop log books throughout the course.

Assessment tasks:

Portfolio (First Sit)
Description: Practical Portfolio
Weighting: 60 %
Final assessment: No
Group work: No
Learning outcomes tested: MO2, MO3, MO4

Examination (Online) (First Sit)
Description: Online Exam (24 hrs)
Weighting: 40 %
Final assessment: Yes
Group work: No
Learning outcomes tested: MO1, MO2, MO3

Portfolio (Resit)
Description: Practical Portfolio
Weighting: 60 %

Final assessment: No

Group work: No

Learning outcomes tested: MO2, MO3, MO4

Examination (Online) (Resit)

Description: Online Exam (24 hrs)

Weighting: 40 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO2, MO3

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

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

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