

Environmental Change

Module Information

2022.02, Approved

Summary Information

Module Code	6307NATSCI
Formal Module Title	Environmental Change
Owning School	Biological and Environmental Sciences
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 6
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
Biological and Environmental Sciences

Learning Methods

Learning Method Type	Hours
Lecture	19
Off Site	4
Practical	16
Workshop	6

Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
JAN-CTY	CTY	January	12 Weeks

Aims and Outcomes

Aims	To examine, interpret and evaluate the evidence for Quaternary environmental change using appropriate proxy techniques and dating methods.
------	--

After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Utilise relevant field and laboratory methods to acquire, interpret and critically evaluate records of environmental change.
MLO2	2	Explain and critically discuss the scientific principles and application of a range of dating methods.
MLO3	3	Critically evaluate scientific literature to establish the mechanisms driving environmental change during the Quaternary.

Module Content

Outline Syllabus	Temporal framework for environmental change during the Quaternary and glacial/interglacial context. Archives of environmental change in both interglacial and glacial landscapes. Techniques for reconstructing past environmental change including field data collection, biological and non-biological methods. Acquisition and interpretation of palaeoecological data. Dating methods appropriate various Quaternary timescales and different sediment types (organic/non-organic). Consideration of the natural and anthropogenic mechanisms driving environmental change.
Module Overview	Within this module, you will examine, interpret and evaluate the evidence for Quaternary environmental change using appropriate proxy techniques and dating methods.
Additional Information	A module investigating the environment and climate of the recent past (Quaternary), using appropriate proxy methods and dating techniques. The Quaternary is the most recent (from 2.6 million years ago to present) geological period and includes dramatic climate changes (glacial and interglacial cycles). These climate changes have fundamentally affected the global environment, but particularly those areas directly impacted by the presence of former ice sheets, such as the British Isles. Huge migrations of plants and animals occurred in response to the changing temperature, landscape and availability of food resources. The late Quaternary period is particularly important because of the emergence and spread of modern humans throughout the globe. We will explore the evidence for past climate change in a variety of geographical settings. We will also consider the role of humans as drivers of environmental change and the emergence of the 'Anthropocene'. Students will apply field and laboratory practical techniques to establish the pattern of environmental change in contrasting landscapes, and learn how to interpret this information critically. Formative feedback is provided throughout the module, particularly in practical classes as datasets are developed. Students receive formative feedback on draft work as part of a coursework workshop.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Report	Field and Practical Report 1	50	0	MLO3, MLO1
Report	Field and Practical Report 2	50	0	MLO3, MLO2

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Michael Burn	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings
--------------	--------------------------	-----------