Module Proforma

Approved, 2022.02

Summary Information

Module Code	4400NATSCI
Formal Module Title	Climate and Human Evolution
Owning School	Biological and Environmental Sciences
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 4
Grading Schema	40

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
James Ohman	Yes	N/A

Module Team Member

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

Partner Module Team

Contact Name	Applies to all offerings	Offerings

Teaching Responsibility

LJMU Schools involved in Delivery
Biological and Environmental Sciences

Learning Methods

Learning Method Type	Hours
Lecture	25
Practical	25
Workshop	10

Module Offering(s)

Offering Code	Location	Start Month	Duration
SEP-CTY	CTY	September	12 Weeks

Aims and Outcomes

Aims	This course aims to provide an introduction to the climate system, and the ways in which humans have interacted with, and adapted/evolved to their climates. It will cover a wide variety of timescales of human-climate interaction and evolution. It explores long and shorter -term patterns of human evolution and climate change, examining the impact of climate instability and aridity upon resources and how well hominins adapted to changing environments of the past seven million years.

Learning Outcomes

After completing the module the student should be able to:

Code	Description
MLO1	Use simple sedimentary and palaeontological indicators of climate change
MLO2	Understand the patterns and processes of long-term climate change and evolution, and particularly of human evolution

Module Content

Outline Syllabus
This course firstly sets out the duration of the geological timescale associated with human-climate interactions. It describes evidence of past environments (geomorphological, sedimentological, biological) and outlines the methods used to sample, date and reconstruct them. It define patterns, process and impacts of very long-term climate change (solar-driven, long-term orbital, geological-driven, astronomical impacts), long-term climate change (Milankovitch mechanisms, glacially-mediated and associated feedback processes, and volcanic processes), and shorter term climate change.The course then explores how climate change shaped the evolution of new hominin adaptations, the origin and extinction of hominin species, and the emergence of our species, Homo sapiens. It also examines the role of climate change in the origins of farming and evaluates the impact of this major economic transition in human history upon the environment. This leads to discussion of the "Anthropocene" and to what degree humans are responsible for current climate change.

Module Overview
This module introduces you to the climate system and the ways in which humans have interacted with, and adapted/evolved to, their climates. It will cover a wide variety of timescales of human-climate interaction and evolution. It explores long and shorter term patterns of human evolution and climate change, examining the impact of climate instability and aridity upon resources.

Additional Information
Course on Climate and Human Evolution

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Learning Outcome Mapping
Report	Report	60	0	MLO1, MLO2
Test	Online Tests	40	0	MLO2