

Summary Information

Module Code	4302NATSCI
Formal Module Title	Earth Systems
Owning School	Biological and Environmental Sciences
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 4
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
Biological and Environmental Sciences

Learning Methods

Learning Method Type	Hours
Lecture	26
Off Site	8
Practical	24
Workshop	2

Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
SEP-CTY	CTY	September	12 Weeks

Aims and Outcomes

Aims	To provide students with an introduction to the components of the Earth (geosphere, atmosphere, hydrosphere, cryosphere and biosphere) and the interactions between them. To gain experience of applying the theoretical knowledge learned during the lectures by collecting, analysing and interpreting data collected in the field.
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After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Explain the processes occurring in the different components of the Earth, i.e., the geosphere, atmosphere, hydrosphere, cryosphere and biosphere
MLO2	2	Examine the interactions between the different components of the Earth.
MLO3	3	Apply practical skills of geographical data collection, analysis, and interpretation.

Module Content

Outline Syllabus	The syllabus of this module includes the following:- Formation of the Earth, its structure, earthquakes and plate tectonics - Atmospheric composition, structure and processes - General controls of global climate and the climates of the world - The water cycle and hydrological processes - An introduction to physical and biological oceanography - Past glaciation and the cryosphere - Ecology and biogeography- Soils: their formation, profile and threats to their sustainability - Sedimentology and stratigraphy- Biogeochemical cycles with an emphasis on the carbon cycle
Module Overview	This module will provide you with an introduction to the Earth from a geographical perspective and explores how the various global systems are linked and interact with one another.
Additional Information	This module provides students with an introduction to the Earth from a geographical perspective and explores how its various components (geosphere, atmosphere, hydrosphere, cryosphere and biosphere) are linked, and interact with one another. Tasks completed during practical sessions will be used as formative assessments in order to provide continuous formative feedback to students throughout the course.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Test	Test	60	0	MLO1, MLO2
Report	Field Report	40	0	MLO1, MLO2, MLO3

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Alexandre Gagnon	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings
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