

Liverpool John Moores University

Title: VOLCANOES EARTHQUAKES AND SOCIETY
Status: Definitive
Code: **5309NATSCI** (121174)
Version Start Date: 01-08-2021

Owning School/Faculty: Biological and Environmental Sciences
Teaching School/Faculty: Biological and Environmental Sciences

Team	Leader
Silvia Gonzalez	Y
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Academic Level: FHEQ5 **Credit Value:** 20 **Total Delivered Hours:** 50
Total Learning Hours: 200 **Private Study:** 150

Delivery Options

Course typically offered: Semester 2

Component	Contact Hours
Lecture	20
Practical	22
Workshop	6

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	Exam	Exam includes a seen question	50	2
Report	GIS Report	GIS Applied Assessment	50	

Aims

To provide students with a broad understanding of volcanic processes, earthquakes, deformation and faulting and the resulting hazards and mitigation.

Learning Outcomes

After completing the module the student should be able to:

- 1 Discuss the tectonic processes associated with the origin of volcanoes, earthquakes and their associated hazards
- 2 Model the effects of volcanic activity using GIS and evaluate the output
- 3 Discuss the origin and nature of seismic activity
- 4 Discuss how to monitor and mitigate the effects of volcanic and earthquake activity.

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

Exam	1	3	4
Report	1	2	

Outline Syllabus

Tectonics background. Introduction to volcanoes and earthquakes. Volcanoes and eruption styles. Origin and description of Earth deformation/earthquakes. Volcanoes and Earthquakes-hazards and mitigation. Case studies from around the world. Volcanoes and Earthquakes impact on society. Individual Formative assessment on "seen exam question" preparation is provided.

Learning Activities

The module will be delivered via a combination of lectures, practical sessions, workshops and GIS integration.

Notes

This module explores the consequences of tectonic activity in the form of earthquakes and volcanoes: their effects, products, monitoring and mitigation.