

## Liverpool John Moores University

Title: Geomorphic Processes and Natural Hazards  
Status: Definitive  
Code: **5367SSLN** (123319)  
Version Start Date: 01-08-2019

Owning School/Faculty: Sports Studies, Leisure and Nutrition  
Teaching School/Faculty: Sports Studies, Leisure and Nutrition

Team	Leader
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**Academic Level:** FHEQ5      **Credit Value:** 20      **Total Delivered Hours:** 41.5  
**Total Learning Hours:** 200      **Private Study:** 158.5

### Delivery Options

Course typically offered: Semester 1

Component	Contact Hours
Lecture	28
Off Site	6
Practical	5
Tutorial	1

**Grading Basis:** 40 %

### Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Essay	AS 1	Essay (2500 words)	50	
Exam	AS 2	Exam	50	1.5

### Aims

*To provide an understanding of earth surface processes as natural hazards, their*

*geomorphology, impacts and human responses.*

## **Learning Outcomes**

After completing the module the student should be able to:

- 1 Evaluate the physical, time and process controls on geomorphic systems and their influence on landform development.
- 2 Evaluate the relationship between earth surface processes, natural hazards, human responses and the management techniques used to predict and alleviate disasters.
- 3 Synthesise and evaluate the relative impacts of natural hazards in the developed and undeveloped world.

## **Learning Outcomes of Assessments**

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

Essay	1	2	3
Exam	1	2	3

## **Outline Syllabus**

*The importance of process, time and climate in geomorphic systems: weathering processes; slope development in mountains including mass movements and scree development. Periglacial processes, including freeze-thaw, solifluction, gelifluction, ground ice formation, tor development, nivation. Hydrological systems: drainage basins, fluvial processes and landscapes. Glacial processes, including erosion, entrainment, depositional and stagnant ice processes. How these natural process relate to natural hazards and the overall geomorphology of the earth surface. Hazard mitigation, human responses and prediction attempts to reduce and manage the impacts on human civilisation from earthquake, tsunami and volcanic hazards. Applied fluvial systems and management: including rainfall storm events, hurricanes and tornados, flash floods and droughts. Coastal zone hazards and their management. Hazards in cold regions; glacial and periglacial hazards including ice-dammed lake floods, building in permafrost, pipelines in permafrost.*

## **Learning Activities**

Lectures; discussions; directed reading; poster preparation; presentation and written summary; fieldwork, practical activities, on-line resources.

## **Notes**

To provide an understanding of earth surface processes as natural hazards, their geomorphology, impacts and human responses.

