

Liverpool John Moores University

Title: Geomorphic Processes and Natural Hazards
Status: Definitive
Code: **5025OUTDOR** (117719)
Version Start Date: 01-08-2016

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:** 24 **Total Delivered Hours:** 48
Total Learning Hours: 240 **Private Study:** 192

Delivery Options

Course typically offered: Standard Year Long

Component	Contact Hours
Lecture	30
Off Site	12
Practical	4
Seminar	2

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	Ass1		30	
Essay	Ass 2		40	
Presentation	Ass 3		30	

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 Synthesise and evaluate the relative impacts of natural hazards in the developed and undeveloped world.
- 3 Evaluate the relationship between earth surface processes, natural hazards, human responses and the management techniques used to predict and alleviate disasters

Learning Outcomes of Assessments

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

Field Report	1
Essay 2000 words	2
Seminar and poster	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

This module involves fieldwork and practical laboratory analysis.

