Liverpool John Moores University

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Title:	GEOGRAPHICAL INFORMATION SYSTEMS IN NATURAL HAZARDS
Status:	Definitive
Code:	**6113NATSCI** (119657)
Version Start Date:	01-08-2015
Owning School/Faculty:	Natural Sciences & Psychology
Teaching School/Faculty:	Natural Sciences & Psychology

Team	Leader
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Academic Level:	FHEQ6	**Credit Value:**	24.00	**Total Delivered Hours:**	49.50
Total Learning Hours:	240	**Private Study:**	190		

Delivery Options
Course typically offered: Standard Year Long

Component	Contact Hours
Lecture	17.000
Off Site	6.000
Practical	20.000
Workshop	5.000

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	Exam	Seen exam question	30.0	1.50
Report	GIS	GIS Flood Risk Assessment	30.0	
Report	Landslide	Landslide Analysis	40.0	

Aims

To provide students with an understanding of the role of GIS in natural hazard characterisation and mapping/monitoring strategies.
To develop skills in the assessment and analysis of those factors, both natural and related to human activity, that cause natural hazards.
To evaluate the methods for monitoring natural hazards and the mitigation of their effects.

Learning Outcomes

After completing the module the student should be able to:

1	Demonstrate practical skills in the analysis and mapping of hazards, including the analysis of field data and application of GIS methods employed in the monitoring of hazard development.
2	Explain and characterise a range of natural hazard processes including mass movement, flooding and tectonic hazards.
3	Assess the factors that cause natural hazards & propose an appropriate hazard management system.
4	Critically evaluate the range of methods employed in hazard analysis

Learning Outcomes of Assessments

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

Seen Exam	2	4
GIS	3	
Landslide Management	1	2

Outline Syllabus

Global context of natural hazards. Site investigations. Slope instability. Hazards monitoring and mapping. Quantitative analysis of data. Coastal and fluvial flooding. Tectonic hazards. Hazard planning and mitigation.

Learning Activities

The module integrates lectures, GIS practical sessions and fieldwork.

Notes

This module provides students with an insight into a range of natural hazard processes in a range of local and global contexts. The associated GIS practicals and

fieldwork will provide students with an understanding of the contexts and skills they would need for careers in geomorphological surveying of hazards and hazard analysis.