Liverpool John Moores University

Title: GEOMORPHOLOGY & GIS
Status: Definitive
Code: **5111NATSCI** (119184)
Version Start Date: 01-08-2019

Owning School/Faculty: Natural Sciences & Psychology
Teaching School/Faculty: Natural Sciences & Psychology

Team	Leader
Tim Lane	Y
Patrick Byrne	
Elizabeth Whitfield	
Jason Kirby	

Academic Level:	FHEQ5	**Credit Value:**	24	**Total Delivered Hours:**	61
Total Learning Hours:	240	**Private Study:**	179		

Delivery Options
Course typically offered: Standard Year Long

Component	Contact Hours
Lecture	21
Off Site	9
Practical	29

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	Exam	Exam essay questions	40	2
Portfolio	Portfolio	Portfolio of practical work	60	

Aims

To provide students with a broad understanding of geomorphological processes and the resulting landforms and sediments and to enable students to use GIS software to analyse geomorphological environments.

Learning Outcomes

After completing the module the student should be able to:

1   Recognise, describe and interpret a range of geomorphological landforms and sediments created by fluvial, glacial and coastal processes.
2   Describe and critically evaluate geomorphological theory.
3   Import images into GIS and digitise spatial data into the format of points, polylines and polygons and display spatial database information in map form.

Learning Outcomes of Assessments

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

Exam   1   2

Portfolio   1   3

Outline Syllabus

The geomorphology, Sedimentology & processes associated with Fluvial Glacial and Coastal Environments. Arid systems. Importing spatial data, and, digitisation of this information into points, polylines and polygons. The graphical display of databse information. Digital manipulation of spatial datasets such as LiDAR and GPS data. Analysis of raster datasets. Performing calculations on spatial datatsets.

Learning Activities

The module will combine lectures, practicals (both computer and laboratory based) and fieldwork.

Notes

This module will provide students with insight into a range of geomorphological processes and the resultant sediment and landform assemblages. This will include the use of computer based GIS systems to map and analyse spatial patterns of landform assemblages.