

## Liverpool John Moores University

Title: ALPINE ENVIRONMENTS  
Status: Definitive  
Code: **6109NATSCI** (119162)  
Version Start Date: 01-08-2016

Owning School/Faculty: Natural Sciences & Psychology  
Teaching School/Faculty: Education, Health and Community

Team	Leader
Patrick Byrne	Y
Timothy Stott	

**Academic Level:** FHEQ6      **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	10
Off Site	28
Practical	10

**Grading Basis:** 40 %

### Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	Report	Field report	50	
Presentation	Seminar	Seminar	20	
Essay	Essay	Timed essay	30	

### Aims

*This module aims to introduce students to the theory & practice behind current research into alpine glaciers and rivers.*

## Learning Outcomes

After completing the module the student should be able to:

- 1 Design and carry out field-based investigations in an alpine glacial or fluvial environment.
- 2 Report the findings of an individual research project to a professional standard using an oral presentation and written report.
- 3 Demonstrate familiarity with current research literature on alpine glacial and fluvial processes.

## Learning Outcomes of Assessments

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

Field report	1	2
Seminar	2	3
Timed essay	3	

## Outline Syllabus

*One week residential fieldtrip to a glacier in the Swiss Alps to conduct field research & data collection.*

*Lectures on glacier theory (mass balance, thermal regime, glacial hydrology & ice dynamics) & fluvial processes in alpine proglacial environments (discharge, suspended sediment, water quality). Effects of climate change on glaciers and rivers. Applications of remote sensing in alpine research. Practical sessions to analyse & interpret data collected in the field.*

## Learning Activities

Residential fieldtrip, lectures, practicals.

## Notes

The module is a combination of a week's fieldwork on an alpine glacier, and lectures & practicals back in the UK. Students will collect their own field and remotely sensed datasets, and will analyse & interpret them within a theoretical framework provided by lectures.