University of Sussex
Department of Geography and School of Global Studies

MSc Engineering Geomorphology, Consultancy & Practice

Full-time, one year; Part-time for two or more years; Course modules available for CPD training

Introduction

Earth-surface processes and natural hazards pose significant challenges to society, development and construction. Applied geomorphology is used to evaluate the opportunities and risks to infrastructure, people and the environment, contributing to sustainable development and the mitigation of significant geohazards and risk. The MSc is a unique course for graduates and professionals that integrates academic and commercial training with project experience. It provides students with the necessary knowledge and skills for work in industry. Specific course modules are available as continuous professional development (CPD) training for those already practising in industry. The course structure and content is based on real-world case work and will be taught by leading practitioners and academic experts in the discipline. A significant proportion of the course will be taught in the field.

Department of Geography

The MSc in Applied Geomorphology is taught in the Department of Geography, which has:

- achieved a top 13 ranking in the 2008 Research Assessment Exercise (RAE)
- industrial links with engineering companies, including Halcrow, Arup and Royal Haskoning
- a Chair in Applied Geomorphology (unique in UK)
- a leading research centre for geomorphology, coastal processes and management
- unique, state-of-the-art facilities for modelling of rock weathering and permafrost
- remote sensing, GIS and process modelling

Student profile for this course

Our students come from all over the world, and have a background in many different disciplines. You will need:

- a first- or upper-second-class undergraduate honours degree in geology, geography, environmental or earth science, natural science or civil engineering
- IELTS 6.5 (with not less than 6.5 in writing and 6.0 in other sections)

CPD profile for this course

Modules of the course are available as CPD training for existing professionals looking to expand or refresh their skills and experience in specific aspects of applied geomorphology. Professionals include those practising in engineering and environmental consultancy firms; exploration, mining and energy companies; agencies and utilities companies; landowners and developers; and central and local government. Entry qualifications are the same as for the student profile.

Course structure*

The programme comprises a series of one-week CPD courses during the Autumn and Spring terms that provide intensive training (or refresher experience, as appropriate) in topics that include:

- *Field Observation and Mapping*
- *Terrain Analysis and GIS*
- *Soil and Rock Description*
- *Ground Models*
- *Geomorphological Processes*
- *Forcing and Predictive Models of Change*
- *Hazard and Risk Assessment*
- *Mitigation and Impact Assessment*

Career opportunities

This programme prepares students and professionals for employment in environmental and engineering consultancy companies, central and local governments, and other private and public sector organizations concerned with infrastructure development, operations, civil protection and the environment.

Summer term and vacation

Students undertake supervised work on a project that may involve either a placement with a consultancy company or environmental organisation, or a piece of independent academic research. A key component of the programme will be user-related training, particularly through work placements, such as the Geomorphology Services Group at Halcrow, a global company that specialises in the provision of planning, design and management services for infrastructure development.

Fees 2013–14

Fees: £6,500 for all students; scholarships, part-time and CPD training available on request. CPD modules £1,229 for a 5-day course.

Further information

For further course descriptions as they develop, please visit **www.sussex.ac.uk/geography**

* Subject to final programme approval

University of Sussex

The Geological Society

endorsed training course