

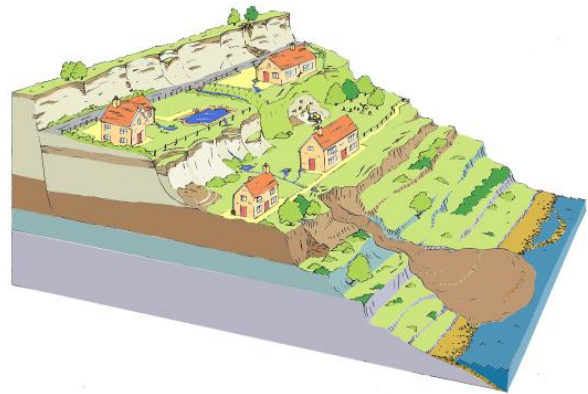
**University of Sussex, Global Studies, Geography
Continuing Professional Development Courses
Engineering Geomorphology, Consultancy & Practice
CPD4: Ground Models**

Course Convenor: Professor Roger Moore PhD FGS CGeol FICE

For more information email: geomorphology@sussex.ac.uk

To apply for this course, register online at: www.sussex.ac.uk/geography/pgstudy

Aims and Objectives: Developing conceptual ground models and their calibration with field data is key to engineering geomorphological assessment. This module covers the various methods, data sources, analysis tools, and presentation methods by reference to terrestrial and subsea examples. Project work will comprise building a conceptual ground model, demonstrating your ability to collate and synthesise appropriate data, conduct accurate interpretation, apply the ground model for a particular purpose, and prepare a concise report and presentation.



Learning outcomes: By the end of the course, participants will be able to:

- 1 Evaluate the data sources, methods and problems of applying ground models.
- 2 Develop a ground model and demonstrate an ability to collate and synthesise data.
- 3 Evaluate the applicability of the ground model to specific site conditions and issues.
- 4 Prepare and present a concise report that applies a ground model to a real case example.

Course programme:

Week 1: Preparatory Reading (online access to reading and resources will be provided)

Week 2: Teaching

Day	Topic	Details
1	Introduction	Types of ground model; application and value; methods and approach; data sources; integration of surface and sub-surface datasets; Practical: developing preliminary ground models
2	Subsea ground models – intro & practical	Geophysical data sources, acquisition methods, specification and applications; software, data processing, visualisation and interpretation; Practical: seismic-geomorphology interpretation and ground model
3	Subsea ground model practical	All day practical to develop a subsea ground model for a proposed development site to be advised
4	Fieldtrip	Barton Cliffs, Barton-on-Sea, Hampshire; cliff management issues; site history, cliff protection and stabilisation; geotechnical monitoring; ground investigation and mapping; Prepare field map and site report.
5	Terrestrial ground models	Preliminary ground models and site investigation planning; 4D ground behaviour models; Practical: Barton cliff behaviour models

Week 3: Coursework and Assessment (optional)

- CPD certificate of attendance for all participants
- Completion of the assessment qualifies for 15 credits towards MSc, comprising:
- 2000 word project and 15 minute presentation