MODULE SPECIFICATION

Part 1: Information			
Module Title	Environmental Engineering Field Study		
Module Code	UBGMYD-15-1	Level	Level 4
For implementation from	2018-19		
UWE Credit Rating	15	ECTS Credit Rating	7.5
Faculty	Faculty of Environment & Technology	Field	Geography and Environmental Management
Department	FET Dept of Geography & Envrnmental Mgmt		
Contributes towards	Civil Engineering [Jan][FT][Northshore][4yrs] MEng 2018-19 Civil and Environmental Engineering [Sep][SW][Frenchay][4yrs] BEng (Hons) 2018-19 Civil and Environmental Engineering [Sep][FT][Frenchay][4yrs] MEng 2018-19 Civil and Environmental Engineering [Sep][SW][Frenchay][5yrs] MEng 2018-19 Civil and Environmental Engineering [Sep][FT][Frenchay][3yrs] BEng (Hons) 2018-19		
Module type:	Standard		
Pre-requisites	None		
Excluded Combinations	None		
Co- requisites	None		
Module Entry requirements	None		

Part 2: Description
Educational Aims: In addition to Learning Outcomes, the educational experience may explore, develop, and practise but not formally discretely assess the following: Oral presentation Work as a team member Time management

Outline Syllabus: Introduction to the geography of the field site. Introduction to literature research and review.

Introduction to the structure of the Earth and Earth materials: minerals, rocks and the rock cycle - geotechnical materials.

Stratigraphy the geological timescale, geological maps.

Ground investigations: desk study, design and planning phases, site reports, obtaining engineering data.

Model building (e.g. card bridges, straw tower, etc).

Properties, characteristics and physical lab testing of materials.

Development of design calculations using mathematical methods (including: algebra, trigonometry, probability).

Field survey, observation and data collection techniques.

Computer exercises – spreadsheets, CAD/Sketchup.

Teaching and Learning Methods: Three hours - on average - contact per week for each student. Contact will be in the form of lectures, practicals, tutorial/workshop groups and fieldwork.

Contact time, including fieldwork: 50 hours

Assimilation and development of knowledge: 55 hours

Coursework preparation: 45 hours

Total study time: 150 hours

This module develops student confidence and competence in the application of mathematics through a series of classroom, workshop and laboratory sessions.

The context is the combination of structure and geotechnic elements, the whole being brought together on a residential field course concerned with potential projects such as:

The identification of a dam site, and dam construction;

The establishment of a small hydro-electric scheme;

Coastal and sea defence structures.

The module will be delivered through a number of lecture and practical sessions aimed at establishing a framework for learning within a context based upon the field study site. Material will be developed through tutorial or computer-based sessions, and supported via BlackBoard. Formative feedback is provided during contact sessions.

Part 3: Assessment
Students are required to keep a notebook which is used for recording all relevant information and data from fieldwork. This is only used for formative feedback given during contact time. The module to be completed as far as students are concerned by the last day of field week. Component A – Field Work (equivalent to 2000 words). Learning outcomes 1, 2, 4, 5, 6, 7, 8 and 9. The field work component is assessed through a combination of field work observations and interpretation; and field

work exercises. These are normally completed during the field trip.

Students unable to attend the field trip complete a written report (2000 words). The report is based on the field work site and require students to undertake a number of tasks that allow them to demonstrate the learning outcomes.

Component B – Portfolio of practical work. Learning outcomes 1 - 7.
Weekly practical exercises which prepare students in the build up to the field trip and form an assessment for learning approach.

Formative work
Formative feedback will be available weekly generally as part of programmed classes. Formative feedback will also be available at various points throughout the fieldtrip.

Resit
Resitting students will complete the written report for component A.

First Sit Components	**Final Assessment**	**Element weighting**	**Description**
Portfolio - Component B		25 %	Portfolio of practical work
Field work - Component A	✓	75 %	Field work (equivalent to 2000 words)
Resit Components	**Final Assessment**	**Element weighting**	**Description**
Portfolio - Component B		25 %	Portfolio of practical work
Field work - Component A	✓	75 %	Field work (equivalent to 2000 words)

Part 4: Teaching and Learning Methods

Learning Outcomes

On successful completion of this module students will be able to:

	Module Learning Outcomes
MO1	Demonstrate an understanding of the rock cycle, and the associated processes and materials
MO2	Demonstrate an awareness of geological structures and interpret geological maps
MO3	Carry out literature research in order to develop a prior understanding of a field site
MO4	Undertake mathematical calculations that underpin standard quantitative analyses, use spreadsheets as appropriate and present results using appropriate SI units and degrees of accuracy
MO5	Describe the structural function of a range of building elements and relate this behaviour to typical construction details and material properties
MO6	Describe simple construction elements using sketch details and scale drawing
MO7	Carry out measurements and produce drawings by hand and using CAD software
MO8	Work independently, and in groups in field observation and designing and executing field data collection strategies
MO9	Understand the role of Site Investigation in determining soil parameters and geological ground conditions

Contact Hours

Contact Hours	
Independent Study Hours:	
Independent study/self-guided study	100
Total Independent Study Hours:	100
Scheduled Learning and Teaching Hours:	
Face-to-face learning	50
Total Scheduled Learning and Teaching Hours:	50
Hours to be allocated	150
Allocated Hours	150

Reading List

The reading list for this module can be accessed via the following link:

https://uwe.rl.talis.com/modules/ubgmyd-15-1.html