



## **Module Specification**

### **Structural Geology and Geophysics**

Version: 2023-24, v3.0, 31 Jul 2023

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## Part 1: Information

**Module title:** Structural Geology and Geophysics

**Module code:** UBGMPQ-30-3

**Level:** Level 6

**For implementation from:** 2023-24

**UWE credit rating:** 30

**ECTS credit rating:** 15

**College:** Faculty of Environment & Technology

**School:** FET Dept of Geography & Environmental Mgmt

**Partner institutions:** None

**Field:** Geography and Environmental Management

**Module type:** Module

**Pre-requisites:** None

**Excluded combinations:** None

**Co-requisites:** None

**Continuing professional development:** No

**Professional, statutory or regulatory body requirements:** None

## Part 2: Description

**Overview:** Not applicable

**Features:** Module Entry Requirements: 60 credits at Level 2

**Educational aims:** This module will build on levels 1 and 2 modules addressing geological structures and plate tectonics.

**Outline syllabus:** You will cover:

Principal theories and concepts of structural geology and geophysics

Styles of deformation, stress and responses.

Rheology and quantification of deformation.

Structural systems and evolution in time and space.

Global tectonics.

Gravity measurements and applications.

Seismology and whole Earth structure.

Geomagnetism and geoelectricity.

Map interpretation and geophysical surveys.

### **Part 3: Teaching and learning methods**

**Teaching and learning methods:** The principal theories and concepts will be introduced through lectures and case studies. These will be reinforced through tutorial discussions and project work. There will be local field work aimed at providing the basis for the coursework assessment. There will be practical and computer-based workshops to develop students' interpretational, graphics and presentation skills. One-to-one support will be provided during practical and tutorial sessions and via email.

**Module Learning outcomes:** On successful completion of this module students will achieve the following learning outcomes.

**MO1** Categorize and interpret rock deformation in terms of global tectonic processes

**MO2** Critically evaluate geophysical concepts and the use of geophysical survey methods in interpretation of geological structures and maps and in site investigations

**MO3** Explain and synthesise the relationships between active tectonic processes on the Earth's surface and underlying processes within the Earth

**MO4** Quantify rock deformation over space and time

**MO5** Demonstrate independent and critical engagement with academic literature

**Hours to be allocated:** 300

**Contact hours:**

Independent study/self-guided study = 228 hours

Face-to-face learning = 72 hours

Total = 300

**Reading list:** The reading list for this module can be accessed at [readinglists.uwe.ac.uk](https://uwe.rl.talis.com/modules/ubgmpg-30-3.html) via the following link <https://uwe.rl.talis.com/modules/ubgmpg-30-3.html>

## **Part 4: Assessment**

**Assessment strategy:** Summative assessment:

Task 1 – In-class test (2 hours):

In class test with a practical component.

Strategy:

This will assess students' ability to interpret rock deformation in terms of global tectonic processes.

Students will be able to demonstrate their understanding of key concepts in structural geology and geophysics and their ability to explain and synthesis relationships between surface and subsurface processes.

Task 2 – Fieldwork report and map interpretation:

The report will be equivalent to 2500 words.

Strategy:

The report will enable students to demonstrate their knowledge and skills using various media.

It will enable assessment of their ability to organise their thoughts, summarise their knowledge and express interpretations and arguments.

Students will be able to demonstrate their engagement with academic literature.

Formative work:

Formative work will be set weekly during practical and field sessions for students' self-assessment. Formative work will be an integral part of the reading strategy. Students will receive preparation practical exercises that will help with interpretative questions for the summative assessment.

Resit:

Same as first sit.

**Assessment tasks:**

**In-class test (First Sit)**

Description: In-class test (2 hours)

Weighting: 50 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO2, MO3, MO4, MO5

**Report (First Sit)**

Description: Report (2500 words)

Weighting: 50 %

Final assessment: No

Group work: No

Learning outcomes tested: MO1, MO2, MO3, MO4, MO5

**In-class test (Resit)**

Description: In-class test (2 hours)

Weighting: 50 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO2, MO3, MO4, MO5

**Report (Resit)**

Description: Report (2500 words)

Weighting: 50 %

Final assessment: No

Group work: No

Learning outcomes tested: MO1, MO2, MO3, MO4, MO5

**Part 5: Contributes towards**

This module contributes towards the following programmes of study:

Geology [Sep][FT][Frenchay][3yrs] - Not Running BSc (Hons) 2021-22

Geology [Sep][SW][Frenchay][4yrs] - Not Running BSc (Hons) 2021-22