



Module Specification

Research in Geology

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Part 1: Information

Module title: Research in Geology

Module code: UBGMJN-30-2

Level: Level 5

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 1

Educational aims: See Learning Outcomes.

Outline syllabus: The syllabus has a substantive applied project/fieldwork element to enable students to undertake geological research in the field and laboratory to build towards their final year dissertation.

The syllabus includes:

Introduction to the research process in geology.

Critically reviewing academic literature.

Formulating research questions, research design and data collection.

Data analysis: descriptive statistics, errors, measures of central tendency.

Correlation, probability distributions.

Sequential data, trend detection, semivariograms.

Analysis of spatial data, interpolation.

Analysis of multivariate data.

Introduction to GIS and remote sensing.

Practising research in geology.

Part 3: Teaching and learning methods

Teaching and learning methods: Scheduled learning on this module includes workshops, demonstrations, practical classes and field excursions.

Independent learning includes hours engaged with essential reading, completion of practical work, assignment preparation and completion. These sessions constitute an average time:

Activity:

Contact time (field and laboratory sessions): 72 hours

Fieldwork: 78 hours

Assimilation, development of knowledge and independent reading: 100 hours

Assessment preparation: 50 hours

Total study time: 300 hours

Students will receive, on average, 3 hours' contact time per week. This is essentially a practical and field-based module. Practical sessions will be introduced by short lectures and demonstrations and there will be a range of formats, including use of local field sites, laboratory, tutorial or computer-based sessions. The module also

includes a residential field excursion where students will work on a range of projects relating to field geology, data collection and interpretation. One-to-one support will be provided during practical and field sessions and via email.

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

MO1 Search and gather information from a variety of sources and critically review academic literature

MO2 Articulate relevant research questions and issues and produce insights, interpretations and solutions

MO3 Process information and data collected in the field or laboratory, including use of ICT

MO4 Work effectively within a group to conduct geological research

MO5 Develop, evaluate and carry out a variety of methods in geological research

MO6 Select and use appropriate statistical and graphical techniques for interpreting and comparing data collected in the field or laboratory

MO7 Present the outcomes of field and laboratory study in professional-level oral, written and graphic (diagrams and maps) forms

Hours to be allocated: 300

Contact hours:

Independent study/self-guided study = 150 hours

Face-to-face learning = 150 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/ubgmjn-30-2.html) via the following link <https://uwe.rl.talis.com/modules/ubgmjn-30-2.html>

Part 4: Assessment

Assessment strategy: Summative assessment:

Assessment Task 1 - Report: Dissertation proposal. Learning outcomes 1, 2, 7.

This report will help students prepare for their dissertation.

Literacy and engagement with academic literature will be assessed.

Assessment Task 2 - Field work. Learning outcomes 1 - 7.

Field work will be assessed during the residential field trip and students will incorporate a literature review/poster that they prepared prior to the trip.

Students will be able to demonstrate their understanding of geological processes and link this to field observations.

Practical work drawn from small group exercises and individual work completed during the residential field excursion will be used to investigate students' field observation skills, and skills in recording and interpreting sediments, rocks and structures in the field and developing a basin history.

Assessment Task 3 - Report. Learning outcomes 1 - 7.

This component will examine students' ability to deal with spatial data, make inferences using GIS and conduct a mini research project with the opportunity to decide on a research question and design a programme of research.

Students will have the opportunity to demonstrate accurate collection of data, choice of methodology and presentation of field data and engagement with academic literature.

The report will assess students' organisational skills, clarity of presentation, scientific rigour of their research methodology and analysis of results.

Resit is the same as the first sit.

Formative work:

Students will receive feedback on their dissertation plans during class time. Only a selection of the exercises that students complete on the fieldtrip contributes towards

the summative assessment. Students will receive feedback after each exercise to improve performance.

Feedback will be given during practical sessions. Students will have the opportunity for feedback on the findings of their mini research projects during project tutorials.

Assessment tasks:

Report (First Sit)

Description: Dissertation proposal (1,500 words max)

Weighting: 25 %

Final assessment: No

Group work: No

Learning outcomes tested: MO1, MO2, MO7

Field work (First Sit)

Description: Exercises before and during the residential field trip (2,000 words)

Weighting: 35 %

Final assessment: Yes

Group work: Yes

Learning outcomes tested: MO1, MO2, MO3, MO4, MO5, MO6, MO7

Report (First Sit)

Description: Mini research project reports (2000 words)

Weighting: 40 %

Final assessment: No

Group work: No

Learning outcomes tested: MO1, MO2, MO3, MO4, MO5, MO6, MO7

Report (Resit)

Description: Mini research project report (2000 words equivalent)

Weighting: 25 %

Final assessment: No

Group work: No

Learning outcomes tested: MO1, MO2, MO3, MO4, MO5, MO6, MO7

Field work (Resit)

Description: Exercises before and during the residential field trip (2,000 words)

Weighting: 35 %

Final assessment: No

Group work: No

Learning outcomes tested: MO1, MO2, MO3, MO4, MO5, MO6, MO7

Report (Resit)

Description: Reworked research proposal (3000 words)

Weighting: 40 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO2, MO3, MO4, MO5, MO6, MO7

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Geology [Sep][SW][Frenchay][4yrs] - Not Running BSc (Hons) 2022-23

Geology [Sep][FT][Frenchay][3yrs] - Not Running BSc (Hons) 2022-23