



Module Specification

Researching Environmental Technology and Management

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Part 1: Information

Module title: Researching Environmental Technology and Management

Module code: UBGMKR-30-2

Level: Level 5

For implementation from: 2023-24

UWE credit rating: 30

ECTS credit rating: 15

Faculty: Faculty of Environment & Technology

Department: FET Dept of Geography & Environmental Mgmt

Partner institutions: None

Delivery locations: Frenchay Campus

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: This module builds upon the level one 'Analysing Environmental Change' and will develop knowledge, skills and competencies in planning, conducting and analysing research projects.

Features: Not applicable

Educational aims: The module provides an important foundation for the level three Final Year Project that will require students to undertake individual research in an area of concern linked to the aims of the programme. Students will be given flexibility as to their exact approach, but they will need to consider the role of technological solutions for managing environmental issues.

Outline syllabus: The syllabus to the module will be framed around the following topics:

Developing a programme of research:

Defining an approach to research / research philosophy

Formulating a research question

Setting aims and objectives

Using fixed / flexible modes of research

Quantitative methods for research:

Questionnaire design

Sampling techniques

Data analysis

Statistical techniques

Qualitative methods of research:

Interviews

Focus groups

Observation

Visual approaches

Practical issues associated with research:

Health and safety issues

Ethical issues

Application of GIS and remote sensing:

The nature of spatial data

Georeferencing

Spatial data models / databases
Inputting and manipulating spatial data
Spatial analysis and visualisation
Spatial decision making

Part 3: Teaching and learning methods

Teaching and learning methods: Students will be expected to engage with a series of lectures and workshops that will help them to develop as a confident and ethical researcher. Importantly, the module develops skills in Geographic Information Systems and Remote Sensing. Students will use these via a group research project.

Students will prepare a research proposal that will help them to prepare for research activities in future studies. The proposal will require students to reflect on relevant literature and to formulate a research question and a supporting list of aims and objectives. Students will also need to think about data sampling, collection and analysis.

Scheduled learning will comprise coursework and lectures, together with practical tasks, guest speakers and possible field visit(s). Lectures will provide a framework for understanding the reading and the key issues covered by the module.

Independent learning will use directed reading via the online reading list and a selection of online resources, including appropriate case studies.

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

MO1 Utilise geographic information systems and remote sensing in the context of being an environmental manager

MO2 Search, organise and critically evaluate academic literature

MO3 Formulate relevant and realistic research questions, based upon academic literature

MO4 Develop, critically evaluate and carry out a variety of methods appropriate to research relevant to environmental technology and management

MO5 Execute a programme of research in response to an agreed project plan

MO6 Orally and visually present the findings of a research project

MO7 Recognise the importance of taking an ethical approach to research and adhering to appropriate health and safety safeguards in conducting a programme of research

Hours to be allocated: 300

Contact hours:

Independent study/self-guided study = 200 hours

Face-to-face learning = 100 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/UBGMKR-30-2.html) via the following link

<https://uwe.rl.talis.com/modules/UBGMKR-30-2.html>

Part 4: Assessment

Assessment strategy: Group Presentation - requires students to use Geographic Information Systems / Remote Sensing, approaches that are widely used in practice. The group task refresh student knowledge of commonly used software. Results will need to be communicated via a presentation which is considered to represent the best format for communicating visual material. It will also allow students to improve communication skills. Students shall work collaboratively to answer a research question. The resulting presentation should explain the approach taken, analyse results and consider relevant literature. Research projects should be made relevant to the aims of the programme. Students will be able to discuss their research project with staff in advance of the presentation to allow time for changes in response to feedback received. Group size will ideally be two to three people. A single group mark will be awarded with mechanisms incorporated to ensure any variability in

individual performance is recognised.

Written Assignment - requires the development of a research proposal which will provide a solid grounding for research activity in further study. The assignment takes the form of a report which is conventional way for proposals to be presented.

Students are required to write a research proposal built around a question and a series of supporting objectives, that students should set themselves. Support for the report will come from lectures and workshops attached to the module. Students will also be able to discuss their intended research, and a plan of their proposals, with module staff.

Resit Presentation - will be based around the same group project but students will need to deliver an individual presentation on the elements of work that they completed or were originally responsible for.

Resit Written Assignment - a similar brief to that described above, which may include some topic changes.

Assessment components:

Presentation (First Sit)

Description: Group presentation (6 mins per person)

Weighting: 50 %

Final assessment: Yes

Group work: Yes

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

Written Assignment (First Sit)

Description: Individual research proposal (2500 words)

Weighting: 50 %

Final assessment: No

Group work: No

Learning outcomes tested: MO2, MO3, MO4, MO7

Presentation (Resit)

Description: Group presentation (6 mins per person)

Presentation is based around the same group project but students will need to deliver an individual presentation on the elements of work that they completed or were originally responsible for.

Weighting: 50 %

Final assessment: Yes

Group work: No

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

Written Assignment (Resit)

Description: Individual research proposal (2500 words)

Weighting: 50 %

Final assessment: No

Group work: No

Learning outcomes tested: MO2, MO3, MO4, MO7

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Energy Technology and Management {Foundation} [Oct][FT][GCET][4yrs] BSc
(Hons) 2021-22

Energy Technology and Management {Foundation} [Feb][FT][GCET][4yrs] BSc
(Hons) 2021-22

Environmental Management and Practice {Foundation} [Feb][FT][GCET][4yrs] BSc
(Hons) 2021-22

Environmental Management and Practice {Foundation} [Oct][FT][GCET][4yrs] BSc
(Hons) 2021-22