Module Specification

Water and Energy Futures

Version: 2027-28, v3.0, 19 Feb 2025

Contents

Module Specification 1

Part 1: Information 2

Part 2: Description 2

Part 3: Teaching and learning methods 3

Part 4: Assessment 4

Part 5: Contributes towards 6

Part 1: Information

Module title: Water and Energy Futures

Module code: UBGMME-30-3

Level: Level 6

For implementation from: 2027-28

UWE credit rating: 30

ECTS credit rating: 15

College: College of Arts, Technology and Environment

School: CATE School of Architecture and Environment

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: This module introduces students to the key challenges in the water and energy sectors and explores the solutions to address these challenges.

Features: Not applicable

Educational aims: Through lectures and structured workshops this module explores the theoretical knowledge about water and energy management. The solutions to

address issues here are explored from technical, social, environmental and regulatory perspectives.

Outline syllabus: The module begins by consolidating students' previous knowledge about water and energy management.

It will introduce students to the key challenges inherent in these sectors, analysed through the sustainability principles. Some key concepts, such as integrated water management, water-energy nexus and low-carbon energy systems, will be introduced and discussed in the classroom. Existing and emerging challenges and solutions will be explored, considering technical, social, environmental and regulatory facets.

Themes explored through the module include:
1. Sustainability considerations (environment, society and economics) related to water and energy issues
2. Integrated water management
3. The interplay between water and energy
4. Renewable energy technologies
5. Heat decarbonisation
6. Energy policy, including energy markets, planning and community energy.

Part 3: Teaching and learning methods

Teaching and learning methods: Scheduled learning will comprise lectures and workshops that will comprise 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 Analyse long-standing and emerging challenges within the water and energy sector.

MO2 Examine the impact of social, political, economic, and regulatory factors on decision-making processes in water and energy management.

MO3 Evaluate options for achieving sustainable energy and water management practices.

MO4 Effectively communicate recommended strategies for improving resilience in water and energy systems to specific target audiences.

Hours to be allocated: 300

Contact hours:

Independent study/self-guided study = 228 hours

Face-to-face learning = 72 hours

Reading list: The reading list for this module can be accessed at readinglists.uwe.ac.uk via the following link https://uwe.rl.talis.com/modules/ubgmme-30-3.html

Part 4: Assessment

Assessment strategy: The assessment strategy is built on the premise of assessment for learning and learning by doing. Assessment comprises two equally weighted tasks: a portfolio and a written assignment, which will enable students to develop various skills and incorporate the knowledge they are gaining from the module.

Presentation – Individual presentation (1500 words equivalent). This will include a presentation, question and answer session and a short write up.

Written assignment - individual written assignment (1500 words).

Resit Portfolio – a similar brief to that described above

Resit written assignment - a similar brief to that described above

Assessment tasks:

Presentation (First Sit)

Description: Presentation (1,500 words equivalent).

To include a presentation, question and answer and short written submission.

Weighting: 50 %

Final assessment: No

Group work: No

Learning outcomes tested: MO1, MO2, MO3, MO4

Written Assignment (First Sit)

Description: Individual written assignment (1500 words)

Weighting: 50 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO2, MO3, MO4

Presentation (Resit)

Description: Individual Presentation (1,500 words equivalent)

To include a presentation, question and answer and short written submission.

Weighting: 50 %

Final assessment: No

Group work: No

Learning outcomes tested: MO1, MO2, MO3, MO4

Written Assignment (Resit)

Description: Individual written assignment (1500 words)

Weighting: 50 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO2, MO3, MO4

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Environmental Management and Practice {Foundation} [GCET] BSc (Hons) 2024-25

Environmental Management and Practice {Foundation} [GCET] BSc (Hons) 2023-24

Environmental Management and Practice {Foundation} [GCET] BSc (Hons) 2024-25

Energy Technology and Management {Foundation} [GCET] BSc (Hons) 2023-24

Energy Technology and Management {Foundation} [GCET] BSc (Hons) 2024-25

Environmental Management {Apprenticeship-UWE}[Frenchay] BSc (Hons) 2024-25

Energy Technology and Management {Foundation} [GCET] BSc (Hons) 2024-25

Geography [Frenchay] BA (Hons) 2024-25

Geography [Frenchay] BSc (Hons) 2024-25

Environmental Management [Frenchay] BSc (Hons) 2024-25

Urban Planning [Frenchay] BSc (Hons) 2025-26

Geography [Frenchay] BA (Hons) 2025-26

Geography [Frenchay] BSc (Hons) 2025-26

Environmental Management [Frenchay] BSc (Hons) 2025-26

Environment and Sustainability [Frenchay] BSc (Hons) 2025-26

Urban Planning [Frenchay] BSc (Hons) 2025-26

Geography [Frenchay] BSc (Hons) 2024-25

Geography [Frenchay] BSc (Hons) 2025-26