



Module Specification

Group Civil and Environmental Engineering Project

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Part 1: Information

Module title: Group Civil and Environmental Engineering Project

Module code: UBGMVA-30-M

Level: Level 7

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

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: Not applicable

Educational aims: The engineering problems will allow you to develop your skills in critical analysis and managing ambiguity. The solution will need to address stakeholder requirements and project risks. Through the design process you will have an opportunity to apply creativity, innovation and technical knowledge to

produce design concepts and develop a design solution. The solution should meet current and future needs and consider both current and emerging technologies.

Outline syllabus: In this module you will work in groups to produce a design solution for a selected engineering problem, which fully considers issues in connection with sustainability. The engineering problem allocated to each group will be selected to allow collaborative working across different civil engineering disciplines.

Part 3: Teaching and learning methods

Teaching and learning methods: Throughout the project you will need to continually monitor, review and adapt your personal and group programme of work. This will require personal initiative and sharing of responsibilities within the group. The outputs of the projects are in presentation and written form, requiring you to be able to succinctly and professionally present the solution and design reasoning.

In order to develop your designs you will need to apply research skills for information search and retrieval using industry best practice documents, standards, codes of practice and academic resources.

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

MO1 Monitor and adjust the programme of work on an on-going basis

MO2 Apply project and change management principles in the development of the solution

MO3 Identify and address environmental, economic and social (including client, stakeholder and end users) constraints and requirements

MO4 Identify project and commercial risks, and mitigate them by using theory or experimentation

MO5 Critically analyse current practice and its limitations

MO6 Critically analyse an unfamiliar design problem to identify pertinent data, and identify and manage ambiguity

MO7 Identify limitations of approaches used to develop the design solution

MO8 Identify and evaluate likely future developments and new and emerging technologies in the context of an engineering design problem

MO9 Develop an innovative design to an engineering design problem that addresses current and future needs

MO10 Exercise personal initiative and responsibility as a member of a group

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/ubgmva-30-m.html) via the following link <https://uwe.rl.talis.com/modules/ubgmva-30-m.html>

Part 4: Assessment

Assessment strategy: The assessment strategy is designed to support students in their independent study, providing feedback so that each group is aware of their progress as they work towards the submission of their group report.

The assessment of the group work will follow the departmental and faculty group work procedures and guidance where appropriate. The assessment is a portfolio of work with 4 subtasks,

Subtask 1: Progress presentation (20 minutes)

A mid-project group progress presentation is used to check progress and identify any issues that may affect a successful completion of the project. Each group must

present their initial work and alternative design concepts/solutions in the form of a client presentation, demonstrating professionalism and the ability to communicate with both technical and non-technical audiences.

Subtask 2: Final client presentation (20 minutes)

The final client presentation will require the groups to present the final solution and provide a design defence. In defending the design solution, an element of the marking will be based on the professionalism of the group under questioning. As part of this final presentation, the groups will be asked to articulate health and safety and ethical issues associated with the project.

Subtask 3: Design report (5000 words)

The output of the project will be a 5000 word group design report which will be assessed on the holistic nature of the solution provided, and project wide considerations.

As an appendix to the report each group member must provide an individual portfolio of work and 500 word reflection on how they exercised and developed initiative and responsibility as a member of the group.

Subtask 4: Individual contribution to the design report and reflection (500 words)

Each student in a group will be required to contribute a section to this report for the area of the design they were responsible for. This will be assessed separate to the group work element of the design report along with their individual reflection in the report appendix.

The individual contribution will be assessed on the quality of the professional reporting and communication skills, technical aspects, research findings, methodology/approach and data analysis.

Referred assessment

The referred assessment will require the student to develop the design for a

component or intervention in a larger scheme. Where the student participated in the first sit assessment, the scheme will be the original engineering problem, allowing students to take into account feedback provided from the first assessment. Where a student was not part of the first sit assessment a simulated case study will be provided.

The resit assessment will comprise of the same number of subtasks. However, the first subtask becomes a review of the process rather than progress update making the referred coursework equivalent to the first sit. Subtasks 2, 3 and 4 will remain the same as the first sit. Resit deliverable(s) will be scaled appropriately to group size and task complexity

Assessment tasks:

Portfolio (First Sit)

Description: Subtask 1: Concept design group presentation (20 mins) with associated documentation

Subtask 2: Scheme design group presentation (20 minutes) with associated documentation

Subtask 3: Team design report (5000 words plus appendices)

Subtask 4: Individual Design Report and Reflection (1500 words plus appendices)

Weighting: 100 %

Final assessment: Yes

Group work: Yes

Learning outcomes tested: MO1, MO10, MO3, MO4, MO5, MO6, MO7, MO8, MO9

Portfolio (Resit)

Description: Subtask 1: Concept design review group presentation (20 mins) with associated documentation

Subtask 2: Scheme design group presentation (20 minutes) with associated

documentation

Subtask 3: Team design report (5000 words plus appendices)

Subtask 4: Individual Design Report and Reflection (1500 words plus appendices)

Weighting: 100 %

Final assessment: Yes

Group work: Yes

Learning outcomes tested: MO1, MO10, MO2, MO3, MO4, MO5, MO6, MO7, MO8, MO9

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Civil and Environmental Engineering [Sep][FT][Frenchay][4yrs] - Not Running MEng 2020-21

Civil Engineering [Sep][FT][Frenchay][4yrs] MEng 2020-21

Civil and Environmental Engineering [Sep][SW][Frenchay][5yrs] MEng 2019-20