



## **Module Specification**

### **Group Project Challenge**

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## Part 1: Information

**Module title:** Group Project Challenge

**Module code:** UFMFEQ-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 Engineering Design & Mathematics

**Partner institutions:** None

**Field:** Engineering, Design and Mathematics

**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 provides a broad comprehension of the competencies and social responsibilities required for 'engineering citizenship' in order to be a professional engineer. This module will introduce students to the wider social considerations needed to enact Corporate Social Responsibility in the modern engineering industry.

**Features:** Not applicable

**Educational aims:** See learning outcomes.

**Outline syllabus:** Communication skills are essential both within a professional work context, and also to engage with communities and groups that are impacted by engineering projects and developments. Students will learn about a variety of engagement strategies utilised by professional organisations and Chartered Engineers, as well as the variety of audiences with which these skills can be practiced and explored.

Students will work in groups to conduct a community placement. Each group will be given an engineering challenge for which they have to develop a socially acceptable solution for the community group. Successful completion of this module will enable students to communicate engineering concepts to a variety of audiences in the future.

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

**Teaching and learning methods:** This module will combine class-based interactive workshops with experience in the community. It is expected students will enhance this with self-directed study.

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

**MO1** Understand and critique science communication and public engagement strategies

**MO2** Understand and critique the social impact of engineering projects

**MO3** Involve people in the community in the design and communication engineering solutions to achieve their requirements

**MO4** Demonstrate understanding and implementation of project management with respect to the project itself and the various considerations required, such as stakeholder, financial and value management

**MO5** Demonstrate awareness of ethics and risk assessment in professional practice

**MO6** Critically reflect on the strategies used and the experiences undertaken

**Hours to be allocated:** 300

**Contact hours:**

Independent study/self-guided study = 205 hours

Placement = 60 hours

Face-to-face learning = 35 hours

Total = 300

**Reading list:** The reading list for this module can be accessed at [readinglists.uwe.ac.uk](https://uwe.ac.uk/readinglists) via the following link

<https://uwe.rl.talis.com/modules/UFMFEQ-30-M.html>

## Part 4: Assessment

**Assessment strategy:** The assessment will enable students to reflect on the importance of being socially responsible engineers; to build and demonstrate their understanding of some of the professional skills needed to communicate their work and ideas in appropriate professional formats.

Placements:

Students will be divided into small groups of two to five, and allocated a community placement. Students will perform site visits to scope out the 'engineering requirements' for the group project. The projects will include engineering considerations, but more importantly for this project, a full scoping of social considerations is also needed. The engineers are expected to produce a brief for an engineering solution which will benefit the community group, which is designed in conjunction with their needs.

Feedback on the engineering solutions, plus in-class and online discussion of their

reading and experiences will encourage peer review and critical analysis of the placements.

The summative assessment will enable reflection on the benefits to the social responsibility aspects of being an engineer. These will consist of:

Group Poster presentation, for a group mark, to discuss how the project has been communicated to and impacted on the relevant community, reflecting how the engineers have connected with the groups involved. This will be a 15 - 20 minute Question and Answer session in class-time involving fellow students as well as the assessors.

Final group report - this will be a summary of the group project and experience, including the engineering solutions presented to the community. Each individual will be expected to contribute 500 words (maximum) to this report.

The group work mark will be moderated using the EDM Group Working Policy, with:

a) Group mark stands for whole group

b) Individual Reflection

Note that for any given delivery of the module the precise method for marking group work will be made known to students at the start of teaching.

Portfolio: Log book from placement submitted (consisting of e.g. research notes, meeting notes, photos and reflections), along with a 2000 word critical reflection on the project process and management.

Formative feedback takes place during the module and considers the quality of the student's reflective thinking and placement feedback on professional standards and achievements.

An individual log book is maintained over the whole module as a 'container' for

academic outputs at regular intervals, as evidence of professional work in progress, and to track and reflect on professional and personal development.

Formative feedback will consist of:

Discussion between peers within the project group

Placement feedback from professionals within the community context

Feedback from engineers through a presentation to the class to share learning.

Resit:

Resit assessment will be 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: Individual portfolio, plus critically reflective report

Weighting: 50 %

Final assessment: No

Group work: No

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

**Poster (First Sit)**

Description: Group poster presentation.

Weighting: 38 %

Final assessment: Yes

Group work: Yes

Learning outcomes tested: MO1, MO2, MO3

**Report (First Sit)**

Description: Group report

Weighting: 12 %

Final assessment: No

Group work: Yes

Learning outcomes tested: MO1, MO2, MO3

**Portfolio (Resit)**

Description: Individual report, plus critically reflective report

Weighting: 50 %

Final assessment: No

Group work: No

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

**Poster (Resit)**

Description: Group poster present

Resit deliverable(s) will be scaled appropriately to group size and task complexity.

Weighting: 38 %

Final assessment: No

Group work: Yes

Learning outcomes tested: MO1, MO2, MO3

**Report (Resit)**

Description: Group report

Resit deliverable(s) will be scaled appropriately to group size and task complexity

Weighting: 12 %

Final assessment: Yes

Group work: Yes

Learning outcomes tested: MO1, MO2, MO3

**Part 5: Contributes towards**

This module contributes towards the following programmes of study:

Engineering Competence {Apprenticeship-UWE} [Frenchay] PGDip 2023-24