



Module Specification

Masters Group Technical Project

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Part 1: Information

Module title: Masters Group Technical Project

Module code: UFMFFQ-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: Not applicable

Features: Not applicable

Educational aims: The technical group project aims to provide students the experience of working within a team, and parallels the way engineers often work in industry. Students will integrate their knowledge and understanding in order to specify and solve a substantial industrial engineering problem, through the

application of engineering tools and methods. The project allows students to develop their understanding of project management, time management, ethics, sustainability, health and safety and risk mitigation. Students will develop effective communication and leadership skills during the project.

Outline syllabus: Students will attend five formal lectures covering the principles and practice of:

1.The requirement for effective project management: the implementation of project management tools.

2.Information search and retrieval: the use of libraries as research tools: databases of publications, use of the Internet in research.

3.Design of technical research programmes: design of experiments; use of controls; pilot experiments. Logging and recording data and the importance of decisions and the basis for them.

4.Design, development and analysis programmes: revision of process and client requirements

5.Specifications: analysis and modelling

Students will then be divided into groups (normally size 4-5 students/group) and given a definition/specification of their industrial project. The problem outline, consultations during the study, final assessment and feedback will be facilitated through tutorial sessions with staff supervising the projects. Contact time may also include consultations with other specialists at UWE and from industry.

Part 3: Teaching and learning methods

Teaching and learning methods: In addition to the formal lectures the students will be expected to learn independently and carry out reading and directed study beyond that available in taught classes and tutorial sessions.

The groups will be required to work effectively as a team and must produce evidence of this through the minutes of weekly group meetings.

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

MO1 Critically interpret a client brief and develop a project plan.

MO2 Plan and manage an open-ended project to a deliverable outcome demonstrating understanding of the impact of the commercial, economic and social environment

MO3 Plan and manage an open-ended project to a deliverable outcome demonstrating understanding of the impact of the commercial, economic and social environment

MO4 Employ effective and appropriate techniques, materials, or approaches in delivering the project outcome.

MO5 Communicate effectively in both verbal and written form, to a technical and non-technical audience. Work effectively as a member of a team to achieve shared objectives within the scope of the project and monitor and adjust a personal programme of work on an on-going basis.

Hours to be allocated: 300

Contact hours:

Independent study/self-guided study = 265 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.rl.talis.com/modules/UFMFFQ-30-M.html) via the following link

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

Part 4: Assessment

Assessment strategy: The students are required to give a GROUP account of their initial technical findings and strategy to achieve a successful solution to the problem. The students will be examined orally to ascertain what the students know and the depth of understanding of the justifications and implementation of potential technical aspects of the project.

Group Executive Briefing, for a group mark, to discuss how the project has been planned, conducted, communicated to and impacted on the relevant function within the organisation, reflecting how the engineers have connected with the groups involved. This will be a Briefing with a Question and Answer session taking around 20 minutes.

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.

The students are required to produce an INDIVIDUAL written assignment submitted at the end of the module. The assignment is designed to assess the students' understanding and application of the various technical aspects of their given project (maximum 2000 words).

Students will be required to give two oral progress reports (as groups) at key stages of the project where formative feedback will be given.

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.

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:

Presentation (First Sit)

Description: Group executive briefing

Weighting: 38 %

Final assessment: Yes

Group work: Yes

Learning outcomes tested: MO1, MO2, MO3, MO5

Report (First Sit)

Description: Group report (max 500 words per person)

Weighting: 12 %

Final assessment: No

Group work: Yes

Learning outcomes tested: MO1, MO2, MO3, MO5

Report (First Sit)

Description: Industrially-focussed report (maximum 2000 words)

Weighting: 50 %

Final assessment: No

Group work: No

Learning outcomes tested: MO2, MO3, MO4, MO5

Presentation (Resit)

Description: Group executive briefing

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

Weighting: 38 %

Final assessment: Yes

Group work: Yes

Learning outcomes tested:

Report (Resit)

Description: Group report (max 500 words per person)

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

Weighting: 12 %

Final assessment: No

Group work: Yes

Learning outcomes tested:

Report (Resit)

Description: Industrially-focussed report (maximum 2000 words)

Weighting: 50 %

Final assessment: No

Group work: No

Learning outcomes tested:

Part 5: Contributes towards

This module contributes towards the following programmes of study:

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

Digital Electronic Systems Engineering {Apprenticeship-UWE} [Frenchay] -

Suspended MSc 2023-24