



## **Module Specification**

### **Individual Project MEng A**

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## Part 1: Information

**Module title:** Individual Project MEng A

**Module code:** UFMFY8-30-3

**Level:** Level 6

**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:** Module Entry requirements: 210 credits of which 90 must be at level 2 or above

**Educational aims:** The nature of the project will be dependent on the topic being investigated. The project is designed to provide an opportunity for students to undertake individual, self-directed work, in an area of their choice related to their

award, and to further their other engineering-based knowledge. The project may encompass any aspect of engineering, and may result from a student's industrial work, from personal interest and experience, or from the university.

**Outline syllabus:** Learning is predominantly through independent, self-directed study, with the support of a project supervisor and the module leader. It is expected that students will develop a range of skills as their project activities develop, from specialist technical skills through to transferable skills. These will include the ability to:

Project manage their activities, from project selection, aims and objectives, through to identifying and discussing its outcomes and their dissemination.

Build awareness of health and safety issues relating to their project and any wider implications, ensuring a suitable risk assessment process is successfully undertaken.

Understand and assess the project's ethical, economic, legal, social and environmental issues.

Review appropriate background material and related academic literature. National codes of practice and policy should also be considered, as relevant.

Develop research methodology to relate their background research to the project application.

Utilise this methodology to analyse and evaluate the project and its process.

Enhance their written and verbal communication skills to ensure all involved in the project are able to perform as expected. These skills will also be required in the dissemination of the project outcomes.

Verify the results achieved and derive explanations for any deviations from expectation.

Discuss the activities undertaken and develop conclusions about the work done and its implications.

Identify recommendations for further activity. This “MEng A” module’s activity provides the groundwork, develops the required methodology, and results in the outcomes to provide the input to an extended research investigation in the chosen topic at Level M (UFMERY-30-M “MEng B”).

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

**Teaching and learning methods:** Students will normally work independently with limited supervision. Each student is assigned a project supervisor. The role of the supervisor is to provide guidance and to monitor progress. Throughout the project, the student will meet their supervisor as required. Scheduled group workshops to cover generic skills are encouraged, along with collaboration between students working on related projects.

As the project is an independent activity, all the supporting material to support the project process will be provided via Blackboard. It is the students’ responsibility to regularly review this material to ensure compliance with the process.

During the project selection and identification stage, students will work closely with their supervisor to formulate a research proposal. This will define the scope of the investigations and experimental studies to be undertaken. It will also establish the resources necessary for project completion. Additionally, the wider considerations about the project will be identified and managed accordingly. Students are encouraged to develop the dissertation as the project work proceeds, to ensure all relevant aspects of the project are captured. Guidance will be given on the writing and composition of the dissertation.

Scheduled contact:

One-to-one: where the student and their supervisor meet, or, where a group of students working on related project topic meet together with their supervisor.

Group: where students are provided with generic study skills advice e.g. information literacy, laboratory awareness.

Self-study: Students are expected to identify and make use of appropriate resources, including other staff, and students, where appropriate. Students are expected to engage with the study and the evaluation of their individual project investigation

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

**MO1 PROJECT PLANNING AND MANAGEMENT**

Demonstrate the management of a self-directed original research project, cogent to their degree, reflecting a substantial piece of work.

**MO2 PROJECT EXECUTION**

Identify an appropriate methodology to execute a systematic study involving technical work.

**MO3 PROJECT EVALUATION**

Synthesise information, evaluate it and develop justified conclusions and recommendations.

**MO4 PROJECT COMMUNICATION**

Effectively communicate technical understanding and recommendations achieved from the research investigation to a technical audience.

**Hours to be allocated:** 300

**Contact hours:**

Independent study/self-guided study = 286 hours

Face-to-face learning = 14 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/ufmfy8-30-3.html) via the following link <https://uwe.rl.talis.com/modules/ufmfy8-30-3.html>

## **Part 4: Assessment**

**Assessment strategy:** The assessment for this module is as follows:

Presentation and viva:

The student is required to present, discuss and demonstrate their understanding of the research undertaken, the findings and conclusions reached.

Project Report:

The report will:

Record the project and the related processes

Contain relevant background supporting evidence

Include a clear methodology, and suitable analysis and evaluation

Provide clear conclusions and recommendations, planning and preparation for the project's development at Level M.

The aim of this element is to ensure the project is technically competent, properly managed and executed. Students are expected to use the dissertation to explain their project and its processes, and are marked on the dissertation – not the project itself. Achieving Learning Outcomes 2 - 4. The recommendations should focus on the activities planned in phase 2, “MEng B”.

Guidelines will be provided to aid project assessment, and will cover all aspects of the project investigation and management as described. Assessment will be by the project supervisor, the first marker, assisted by another academic, the second marker. Both markers will scrutinise the project, and arrive at individual marks. They will use these marks to derive a provisional dissertation mark.

Marking Criteria: There will be a range of published criteria, focusing on two key

aspects – the management of the project and the demonstration of technical competence. There will be consideration about how the activity has prepared the student for the Level M phase of the project.

### Progression Portfolio

(Progress Review = meeting with the supervisor where evidence is presented)

Progress Review 1: Evidence of meeting with supervisor (and technician) to generate initial project concept including aims, objectives, scopes, research questions, ethics.

Progress Review 2: Evidence of risk assessment, project management, evaluation of methodology, references, and setting targets for the next progress review.

Progress Review 3: Evidence of work undertaken so far and addressing the targets set in the previous progress review.

Resit is the same as the first sit

### **Assessment tasks:**

#### **Portfolio (First Sit)**

Description: Progression Portfolio

(Progress Review = meeting with the supervisor where evidence is presented)

Progress Review 1: Evidence of meeting with supervisor (and technician) to generate initial project concept including aims, objectives, scopes, research questions, ethics.

Progress Review 2: Evidence of risk assessment, project management, evaluation of methodology, references, and setting targets for the next progress review.

Progress Review 3: Evidence of work undertaken so far and addressing the targets set in the previous progress review.

Weighting:

Final assessment: No

Group work: No

Learning outcomes tested: MO1

### **Dissertation (First Sit)**

Description: Submission of a journal, conference, technical report or design summary containing their research activities. Typically this will be 10-15 page document.

Weighting: 50 %

Final assessment: No

Group work: No

Learning outcomes tested: MO2, MO3, MO4

### **Presentation (First Sit)**

Description: Viva style - presentation and individual questioning (typically 45 minutes) or where appropriate a demonstration of the engineering work in practice.

Weighting: 50 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO2, MO3, MO4

### **Portfolio (Resit)**

Description: Combined portfolio review meeting where evidence for the following topics is presented:

- Evidence of meeting with supervisor (and technician) to generate initial project concept including aims, objectives, scopes, research questions, ethics.
- Evidence of risk assessment, project management, evaluation of methodology, references, and setting targets for the next progress review.
- Evidence of work undertaken so far and addressing the targets set in the previous progress review.
- Reflection on project delivery.



Weighting:

Final assessment: No

Group work: No

Learning outcomes tested: MO1

### **Dissertation (Resit)**

Description: Submission of a journal, conference, technical report or design summary containing their research activities. Typically this will be 10-15 page document.

Weighting: 50 %

Final assessment: No

Group work: No

Learning outcomes tested: MO2, MO3, MO4

### **Presentation (Resit)**

Description: Viva style - presentation and individual questioning (typically 45 minutes) or where appropriate a demonstration of the engineering work in practice.

Weighting: 50 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO2, MO3, MO4

## **Part 5: Contributes towards**

This module contributes towards the following programmes of study:

Electronic Engineering [Sep][FT][Frenchay][4yrs] - Withdrawn MEng 2021-22

Mechanical Engineering [Sep][FT][Frenchay][4yrs] MEng 2021-22

Civil Engineering [Jan][FT][Northshore][4yrs] - Not Running MEng 2021-22

Civil Engineering [Jan][FT][Northshore][3yrs] - Not Running BEng (Hons) 2021-22

Mechanical Engineering [Sep][SW][Frenchay][5yrs] MEng 2020-21

Aerospace Engineering [Sep][SW][Frenchay][5yrs] MEng 2020-21

Electronic Engineering [Sep][SW][Frenchay][5yrs] MEng 2020-21

Aerospace Engineering (Manufacturing) [Sep][SW][Frenchay][5yrs] - Not Running  
MEng 2020-21

Aerospace Engineering (Design) [Sep][SW][Frenchay][5yrs] - Not Running MEng  
2020-21

Aerospace Engineering [Sep][SW][Frenchay][4yrs] - Not Running BEng (Hons)  
2020-21

Aerospace Engineering (Design) [Sep][SW][Frenchay][4yrs] - Not Running BEng  
(Hons) 2020-21

Aerospace Engineering {Foundation} [Sep][FT][Frenchay][4yrs] - Not Running BEng  
(Hons) 2020-21

Aerospace Engineering (Manufacturing) {Foundation} [Sep][FT][Frenchay][4yrs] -  
Not Running BEng (Hons) 2020-21

Aerospace Engineering (Systems) {Foundation} [Sep][FT][Frenchay][4yrs] - Not  
Running BEng (Hons) 2020-21

Aerospace Engineering (Design) {Foundation} [Sep][FT][Frenchay][4yrs] - Not  
Running BEng (Hons) 2020-21

Aerospace Engineering with Pilot Studies (Manufacturing) [Sep][SW][Frenchay][5yrs]  
- Not Running MEng 2020-21

Aerospace Engineering with Pilot Studies (Systems) [Sep][SW][Frenchay][5yrs] - Not  
Running MEng 2020-21

Aerospace Engineering with Pilot Studies (Design) [Sep][SW][Frenchay][5yrs] - Not  
Running MEng 2020-21

Automotive Engineering {Foundation} [Sep][FT][Frenchay][5yrs] - Not Running MEng  
2020-21

Electronic Engineering {Foundation} [Sep][FT][Frenchay][4yrs] - Not Running BEng  
(Hons) 2020-21

Automotive Engineering [Sep][SW][Frenchay][5yrs] MEng 2020-21

Aerospace Engineering with Pilot Studies [Sep][SW][Frenchay][5yrs] MEng 2020-21

Aerospace Engineering (Systems) [Sep][SW][Frenchay][5yrs] MEng 2020-21

Aerospace Engineering {Foundation} [Sep][SW][Frenchay][5yrs] BEng (Hons) 2019-20

Aerospace Engineering (Design) {Foundation} [Sep][SW][Frenchay][5yrs] BEng (Hons) 2019-20

Aerospace Engineering (Manufacturing) {Foundation} [Sep][SW][Frenchay][5yrs] BEng (Hons) 2019-20

Aerospace Engineering (Systems) {Foundation} [Sep][SW][Frenchay][5yrs] BEng (Hons) 2019-20

Electronic Engineering {Foundation} [Sep][SW][Frenchay][5yrs] BEng (Hons) 2019-20

Automotive Engineering {Foundation} [Sep][SW][Frenchay][6yrs] MEng 2019-20

Mechanical Engineering [Sep][PT][Frenchay][7yrs] MEng 2018-19

Aerospace Engineering [Sep][PT][Frenchay][8yrs] MEng 2018-19

Aerospace Engineering (Design) [Sep][PT][Frenchay][8yrs] MEng 2018-19

Aerospace Engineering (Manufacturing) [Sep][PT][Frenchay][8yrs] MEng 2018-19

Aerospace Engineering (Systems) [Sep][PT][Frenchay][8yrs] MEng 2018-19