



## MODULE SPECIFICATION

| Part 1: Information       |  |                    |                                     |
|---------------------------|--|--------------------|-------------------------------------|
| Module Title              | Individual Project MEng A              |                    |                                     |
| Module Code               | UFMFY8-30-3                            | Level              | Level 6                             |
| For implementation from   | 2018-19                                |                    |                                     |
| UWE Credit Rating         | 30                                     | ECTS Credit Rating | 15                                  |
| Faculty                   | Faculty of Environment & Technology    | Field              | Engineering, Design and Mathematics |
| Department                | FET Dept of Engin Design & Mathematics |                    |                                     |
| Contributes towards       |  |                    |                                     |
| Module type:              | Standard                               |                    |                                     |
| Pre-requisites            | None                                   |                    |                                     |
| Excluded Combinations     | None                                   |                    |                                     |
| Co- requisites            | None                                   |                    |                                     |
| Module Entry requirements | None                                   |                    |                                     |

| Part 2: Description  |
|--|
| <p><b>Features:</b> Module Entry requirements: 210 credits of which 90 must be at level 2 or above</p> <p><b>Educational Aims:</b> 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.</p> <p><b>Outline Syllabus:</b> 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:</p> <p>Project manage their activities, from project selection, aims and objectives, through to identifying</p> |

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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").

**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

**Part 3: Assessment**

Component A

Project Poster and Presentation:

The student is required to present, discuss and demonstrate their understanding of the research undertaken, the findings and conclusions reached. Their project poster will be used to introduce the project. The project supervisor will prepare a range of questions to examine the student's depth of understanding. Achieving Learning Outcome 6.

Component B

B1 Research Proposal

This document will:

Record the formal requirements of the project

Consider the ethical, economic, legal, social and environmental implications of the project

Identify the project management requirements, such as resources and risk considerations

Contain a project schedule, including relevant Literature Review /Background Research plan.

Be a maximum of 10 pages in length, including a Contact Register of 2 pages.

The aim of this element is to ensure the project is planned properly, has started and is progressing as expected, with the potential to achieve a suitable outcome for the module. Achieving Learning Outcomes 1 and 2.

B2 Project Report / Dissertation:

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.

Be a maximum of 12,000 words.

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 - 6. 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.

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| First Sit Components             | Final Assessment | Element weighting | Description             |
|----------------------------------|------------------|-------------------|-------------------------|
| Written Assignment - Component B |                  | 11 %              | Research proposal       |
| Report - Component B             |                  | 64 %              | Report (12000 words)    |
| Presentation - Component A       | ✓                | 25 %              | Poster and Presentation |
| Resit Components                 | Final Assessment | Element weighting | Description             |
| Report - Component B             |                  | 75 %              | Report (12000 words)    |
| Presentation - Component A       | ✓                | 25 %              | Poster and presentation |

### Part 4: Teaching and Learning Methods

|                   |   |  |
|-------------------|---|--|
| Learning Outcomes | On successful completion of this module students will be able to: |  |
|                   |   | <b>Module Learning Outcomes</b>  |
|                   | MO1   | Identify the main issues to be examined and the problems to be solved in the execution of an engineering-discipline-related technical project.   |
|                   | MO2   | Undertake management of technical projects and select appropriate knowledge sources to guide project execution and fulfil the project aims.  |
|                   | MO3   | Complete technical work, undertake design and specification of critical components so as to enable experiments to be undertaken with success.  |
|                   | MO4   | Analyse and evaluate experimental and other data arising, to complete a critical appraisal of the technical work undertaken for the project and the overall management of the investigation. |
|                   | MO5   | Make clear and well-argued and supported recommendations for the continuation of the further work and development of the project into the Level M phase - MEng B.                            |
|                   | MO6   | Effectively communicate, verbally and in written format, technical understanding and recommendations achieved from the research investigation.   |
| Contact Hours     | <b>Contact Hours</b>  |  |
|                   |   |  |
|                   | <b>Independent Study Hours:</b>                                   |  |
|                   | Independent study/self-guided study                               | 286  |
|                   | <b>Total Independent Study Hours:</b>                             | 286  |

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|              |   |     |
|--------------|---|-----|
|              | <b>Scheduled Learning and Teaching Hours:</b>   |     |
|              | Face-to-face learning   | 14  |
|              | <b>Total Scheduled Learning and Teaching Hours:</b>   | 14  |
|              | <b>Hours to be allocated</b>  | 300 |
|              | <b>Allocated Hours</b>  | 300 |
| Reading List | <p><i>The reading list for this module can be accessed via the following link:</i></p> <p><a href="https://uwe.rl.talis.com/modules/ufmfy8-30-3.html">https://uwe.rl.talis.com/modules/ufmfy8-30-3.html</a></p> |     |