Module Specification

Engineering Project

Version: 2027-28, v4.0, Approved

Contents

Part 1: Information

Module title: Engineering Project

Module code: UFMFX8-30-3

Level: Level 6

For implementation from: 2027-28

UWE credit rating: 30

ECTS credit rating: 15

College: College of Arts, Technology and Environment

School: CATE School of Engineering

Partner institutions: None

Field: Engineering, Design and Mathematics

Module type: Module

Pre-requisites: Engineering Research 2026-27, Project Management for Engineers 2026-27

Excluded combinations: None

Co-requisites: None

Continuing professional development: No

Professional, statutory or regulatory body requirements: None

Part 2: Description

Overview: The Engineering Project module provides the opportunity for a student to undertake a detailed individual research project, demonstrating subject knowledge, project management skills and awareness of ethical and environmental impact of their work. The module follows directly from the level 5 module Engineering Research in which students develop a research proposal that could form the basis of the individual engineering project.

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.

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.

Students must have achieved one of the listed pre-requisite modules before enrolling on this module:
Engineering Research OR
Engineering Project Management

Features: Not applicable

Educational aims: The aim of this module is to provide the platform for students demonstrate substantial engineering subject knowledge and engineering management skill in the completion of an individual research project.

The module provides evidence to relevant accreditation bodies that students have satisfied key learning outcomes as defined by the Engineering Council UK by demonstrating the ability to integrate engineering knowledge and skills to manage a technical project and be aware of the ethical, societal and environmental of their work.

Outline syllabus: 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 and use this methodology to analyse and evaluate the project and its process. Validate and explain the results achieved.

Develop their written and verbal communication skills to disseminate the project outcomes.

Discuss the activities undertaken and develop conclusions about the work done and its implications. Identify recommendations for further activity

Part 3: Teaching and learning methods

Teaching and learning methods: This is a self-directed, self-managed individual project module. 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.

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.

Student's may develop further the project proposal developed in the module Engineering Research or develop a new project idea.

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 their dissertations 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 with their supervisor.

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.

Review meetings will be held on a regular basis between supervisor and student, at which project planning and progress will be discussed. The meeting will enable the supervisor to give feedback to the student, concerning the work undertaken and the progress achieved. Such meetings will take place typically every two/three weeks during the teaching year. It will be the responsibility of the student to arrange and record such meetings.

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

Reading list: The reading list for this module can be accessed at readinglists.uwe.ac.uk via the following link https://uwe.rl.talis.com/modules/ufmfx8-30-3.html

Part 4: Assessment

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

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.

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 for further work based on the
project's outcomes

Guidelines will be provided to aid project assessment, and will cover all aspects of
the project investigation and management as described.

Final Viva Presentation:
The student will be have a viva around their final report.

Resit is the same as the first sit

Assessment tasks:

Portfolio (First Sit)
Description: Progression Portfolio (Pass/fail)
Weighting: 0 %
Final assessment: No
Group work: No
Learning outcomes tested: MO1

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

Dissertation (First Sit)

Description: Submission of a journal, conference, technical report or design summary containing their research activities (10-15 page document).

Weighting: 50 %

Final assessment: No

Group work: No

Learning outcomes tested: MO2, MO3, MO4

Portfolio (Resit)

Description: Progression Portfolio (Pass/fail)

Weighting: 0 %

Final assessment: No

Group work: No

Learning outcomes tested: MO1

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

Dissertation (Resit)

Description: Submission of a journal, conference, technical report or design summary containing their research activities (10-15 page document).

Weighting: 50 %

Final assessment: No

Group work: No

Learning outcomes tested: MO2, MO3, MO4

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Electronic Engineering {Foundation} [Frenchay] WITHDRAWN BEng (Hons) 2023-24

Electro-mechanical Engineering {Apprenticeship-UCW}[UCW] BEng (Hons) 2023-24

Aerospace Engineering {Foundation} [Frenchay] BEng (Hons) 2023-24

Engineering {Foundation} [Frenchay] BSc (Hons) 2023-24

Automotive Engineering {Foundation} [Frenchay] BEng (Hons) 2023-24

Aerospace Engineering with Pilot Studies {Foundation} [Frenchay] BEng (Hons) 2023-24

Civil Engineering [Frenchay] BEng (Hons) 2024-25

Electronic and Computer Engineering {Apprenticeship-GLOSCOLL} [GlosColl] BEng (Hons) 2023-24

Aerospace Engineering {Apprenticeship-UCW} [UCW] BEng (Hons) 2023-24

Mechatronics Engineering {Foundation} [Frenchay] MEng 2023-24

Mechatronics Engineering {Foundation}[Frenchay] BEng (Hons) 2023-24

Electrical and Electronic Engineering {Foundation} [Frenchay] BEng (Hons) 2023-24

Robotics {Foundation} [Frenchay] BEng (Hons) 2023-24

Electronic and Computer Engineering [GlosColl] BEng (Hons) 2023-24

Civil Engineering [Frenchay] MEng 2024-25

Civil Engineering {Foundation} [Frenchay] BEng (Hons) 2024-25

Mechanical Engineering {Foundation} [Frenchay] BEng (Hons) 2023-24

Mechatronics Engineering [Frenchay] MEng 2024-25

Electrical and Electronic Engineering {Foundation} [Frenchay] BEng (Hons) 2024-25

Aerospace Engineering {Foundation} [Frenchay] BEng (Hons) 2024-25

Electro-mechanical Engineering {Apprenticeship-UCW}[UCW] BEng (Hons) 2024-25

Aerospace Engineering [Frenchay] BEng (Hons) 2024-25

Aerospace Engineering [Frenchay] MEng 2024-25

Aerospace Engineering with Pilot Studies {Foundation} [Frenchay] BEng (Hons) 2024-25

Aerospace Engineering with Pilot Studies [Frenchay] BEng (Hons) 2024-25

Electronic and Computer Engineering [Frenchay] BEng (Hons) 2024-25

Aerospace Engineering with Pilot Studies [Frenchay] MEng 2024-25

Robotics {Foundation} [Frenchay] BEng (Hons) 2024-25

Robotics [Frenchay] BEng (Hons) 2024-25

Aerospace Engineering {Apprenticeship-UWE} [UCW] BEng (Hons) 2024-25

Mechanical Engineering {Foundation} [Frenchay] BEng (Hons) 2024-25

Electrical and Electronic Engineering [Frenchay] BEng (Hons) 2024-25

Engineering {Foundation} [Frenchay] BSc (Hons) 2024-25

Mechanical Engineering with Manufacturing {Apprenticeship-UWE} [UCW] BEng (Hons) 2024-25

Engineering [Frenchay] BSc (Hons) 2024-25

Mechanical Engineering [Frenchay] BEng (Hons) 2024-25

Automotive Engineering {Foundation} [Frenchay] BEng (Hons) 2024-25

Automotive Engineering [Frenchay] BEng (Hons) 2024-25

Automotive Engineering [Frenchay] MEng 2024-25

Mechatronics Engineering {Foundation} [Frenchay] MEng 2024-25

Mechatronics Engineering [Frenchay] BEng (Hons) 2024-25

Mechatronics Engineering {Foundation}[Frenchay] BEng (Hons) 2024-25

Robotics {Foundation} [Frenchay] BEng (Hons) 2023-24

Robotics {Foundation} [Frenchay] BEng (Hons) 2024-25

Automotive Engineering [Frenchay] - Withdrawn MEng 2024-25

Aerospace Engineering [Frenchay] MEng 2024-25

Automotive Engineering [Frenchay] BEng (Hons) 2024-25

Automotive Engineering {Foundation} [Frenchay] BEng (Hons) 2023-24

Automotive Engineering {Foundation} [Frenchay] BEng (Hons) 2024-25

Aerospace Engineering [Frenchay] BEng (Hons) 2024-25

Aerospace Engineering {Apprenticeship-UCW} [UCW] BEng (Hons) 2023-24

Aerospace Engineering {Apprenticeship-UWE} [UCW] BEng (Hons) 2024-25

Aerospace Engineering {Foundation} [Frenchay] BEng (Hons) 2023-24

Aerospace Engineering {Foundation} [Frenchay] BEng (Hons) 2024-25

Aerospace Engineering with Pilot Studies [Frenchay] BEng (Hons) 2024-25

Aerospace Engineering with Pilot Studies [Frenchay] MEng 2024-25

Aerospace Engineering with Pilot Studies {Foundation} [Frenchay] BEng (Hons) 2023-24

Aerospace Engineering with Pilot Studies {Foundation} [Frenchay] BEng (Hons) 2024-25

Electronic and Computer Engineering [Frenchay] BEng (Hons) 2024-25

Electronic and Computer Engineering [GlosColl] BEng (Hons) 2023-24

Electronic and Computer Engineering {Apprenticeship-GLOSCOLL} [GlosColl] BEng (Hons) 2023-24

Civil Engineering [Frenchay] BEng (Hons) 2024-25

Electrical and Electronic Engineering [Frenchay] BEng (Hons) 2024-25

Electrical and Electronic Engineering {Foundation} [Frenchay] BEng (Hons) 2023-24

Mechatronics Engineering [Frenchay] MEng 2024-25

Mechatronics Engineering {Foundation} [Frenchay] MEng 2023-24

Mechatronics Engineering {Foundation} [Frenchay] MEng 2024-25

Mechatronics Engineering {Foundation}[Frenchay] BEng (Hons) 2023-24

Mechatronics Engineering {Foundation}[Frenchay] BEng (Hons) 2024-25

Mechatronics Engineering [Frenchay] BEng (Hons) 2024-25

Robotics [Frenchay] BEng (Hons) 2024-25

Robotics {Foundation} [Frenchay] BEng (Hons) 2023-24

Robotics {Foundation} [Frenchay] BEng (Hons) 2024-25

Civil Engineering [Frenchay] MEng 2024-25

Mechanical Engineering with Manufacturing {Apprenticeship-UCW} [UCW] BEng (Hons) 2024-25

Mechatronics Engineering [Frenchay] MEng 2025-26

Aerospace Engineering [Frenchay] BEng (Hons) 2025-26

Automotive Engineering [Frenchay] BEng (Hons) 2025-26

Aerospace Engineering [Frenchay] MEng 2025-26

Electronic and Computer Engineering [Frenchay] BEng (Hons) 2025-26

Aerospace Engineering with Pilot Studies [Frenchay] MEng 2025-26

Robotics [Frenchay] BEng (Hons) 2025-26

Mechanical Engineering [Frenchay] BEng (Hons) 2025-26

Aerospace Engineering with Pilot Studies [Frenchay] BEng (Hons) 2025-26

Civil Engineering [Frenchay] BEng (Hons) 2025-26

Electrical and Electronic Engineering [Frenchay] BEng (Hons) 2025-26

Mechatronics Engineering [Frenchay] BEng (Hons) 2025-26

Civil Engineering [Frenchay] MEng 2025-26

Robotics [Frenchay] BEng (Hons) 2025-26

Electrical and Electronic Engineering [Frenchay] BEng (Hons) 2025-26

Electrical and Electronic Engineering {Foundation} [Frenchay] BEng (Hons) 2024-25

Robotics {Foundation} [Frenchay] BEng (Hons) 2024-25

Robotics [Frenchay] BEng (Hons) 2024-25

Aerospace Engineering with Pilot Studies [Frenchay] MEng 2024-25

Aerospace Engineering [Frenchay] MEng 2024-25

Aerospace Engineering [Frenchay] MEng 2025-26

Aerospace Engineering with Pilot Studies [Frenchay] MEng 2025-26

Aerospace Engineering with Pilot Studies [Frenchay] MEng 2025-26

Aerospace Engineering [Frenchay] MEng 2025-26

Robotics {Foundation} [Frenchay] BEng (Hons) 2023-24

Mechanical Engineering [Frenchay] MEng 2022-23

Electro-mechanical Engineering {Apprenticeship-UCW}{Top-Up}[Frenchay] BEng (Hons) 2026-27

Electronic and Computer Engineering [SHAPE] BEng (Hons) 2026-27

Electronic and Computer Engineering [SHAPE] BEng (Hons) 2026-27

Electronic Engineering {Apprenticeship-UCW} {Top-Up} [Frenchay] BEng (Hons) 2026-27

Engineering {Top-Up} [Frenchay] BSc (Hons) 2026-27

Mechanical Engineering (Mechatronics) [BIET] BEng (Hons) 2026-27

Mechanical Engineering {Apprenticeship-GlosColl} {Top-Up} [Frenchay] BEng (Hons) 2026-27

Mechanical Engineering {Apprenticeship-UCS} {Top-Up} [Frenchay] BEng (Hons) 2026-27

Mechanical Engineering {Apprenticeship-UCW} {Top-Up} [Frenchay] BEng (Hons) 2026-27

Engineering [Frenchay] BSc (Hons) 2025-26

Mechanical Engineering [Frenchay] MEng 2022-23

Mechanical Engineering [Frenchay] BEng (Hons) 2022-23

Electronic Engineering [Frenchay] BEng (Hons) 2022-23

Aerospace Engineering {Apprenticeship-UCW} [UCW] BEng (Hons) 2024-25

Aerospace Engineering {Apprenticeship-UCW} [UCW] BEng (Hons) 2024-25

Aerospace Engineering {Apprenticeship-UCW} [UCW] BEng (Hons) 2024-25

Aerospace Engineering {Apprenticeship-UCW} [UCW] BEng (Hons) 2024-25