Module Specification

MEng Group Project

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Contents

Part 1: Information

Module title: MEng Group Project

Module code: UFMED7-30-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: See Learning Outcomes.

Outline syllabus: Outline of the selected problem by lecturer and industrial representative, development of specification by students (with lecturer\'s comments), work of students on solution (work in groups, planning, teamwork), presentation,

feedback discussion.

Areas covered by a short taught section (6 hours) include:

Design of research programmes. Design of experiments; use of controls. Pilot experiments. Logging and recording data. The need to record decisions and the basis for them.

Design and development programmes. Revision of design process. Client requirements. Specifications. Analysis and Modelling. Design for manufacture as well as purpose. Prototypes.

Information search and retrieval. Use of libraries as research tools. Databases of publications. Use of Internet in research.

The need for effective project management and the use of project management tools.

Part 3: Teaching and learning methods

Teaching and learning methods: Students will attend five formal lectures covering the principles and practice of:

Design of research programmes. Design of experiments; use of controls. Pilot experiments. Logging and recording data. The need to record decisions and the basis for them.

Design and development programmes. Revision of design process. Client requirements.

Specifications. Analysis and Modelling.

Information search and retrieval. Use of libraries as research tools. Databases of

publications. Use of Internet in research.

The need for effective project management and the use of project management tools.

Students will then be divided into groups (optimum size 3-5 students/group) and given a definition/specification of their 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 visits to industry and consultations with other specialists at UWE.

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. 72 hours are timetabled for the students to meet up in teams.

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

MO1 The practical constraint of the design and/or manufacturing process within industrial organisations

MO2 How to manage interdisciplinary projects

MO3 An individual's role in a project team

MO4 Their ability to communicate concepts do their peers

MO5 Open-ended multi-disciplinary projects

MO6 Use of theoretical methods within an industrial environment

MO7 Alternative solutions within the constraints of the project specification

MO8 Open-ended projects within practical constraints and learn to apply theoretical methods in industrial situations

MO9 Progression to independent learning

MO10 Self-management skills

MO11 To research topics relating to the design project

MO12 Undertake a realistic task for which there is a strictly limited time for completion

Hours to be allocated: 300

Contact hours:

Independent study/self-guided study = 294 hours

Face-to-face learning = 6 hours

Total = 300

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/ufmed7-30-m.html

Part 4: Assessment

Assessment strategy: Students will be required to give two oral progress reports (as groups) at key stages of the project. Formative feedback will be given at this time.

The module is examined via a group report and a group viva.

Assessment tasks:

Report (First Sit)
Description: Written individual report
Weighting: 80 %
Final assessment: Yes
Group work: No
Learning outcomes tested: MO1, MO10, MO11, MO12, MO2, MO3, MO4, MO5, MO6, MO7, MO8, MO9

Presentation (First Sit)

Description: Oral presentation
Weighting: 20 %
Final assessment: No
Group work: No
Learning outcomes tested: MO1, MO10, MO11, MO12, MO2, MO3, MO4, MO5, MO6, MO7, MO8, MO9

Report (Resit)
Description: Written individual report
Weighting: 80 %
Final assessment: Yes
Group work: No
Learning outcomes tested:

Presentation (Resit)
Description: Oral presentation
Weighting: 20 %
Final assessment: No
Group work: No
Learning outcomes tested:

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Aerospace Engineering [Sep][FT][Frenchay][4yrs] - Not Running MEng 2020-21

Aerospace Engineering (Design) [Sep][FT][Frenchay][4yrs] - Not Running MEng 2020-21

Aerospace Engineering (Systems) [Sep][FT][Frenchay][4yrs] - Not Running MEng 2020-21

Aerospace Engineering (Manufacturing) [Sep][FT][Frenchay][4yrs] - Not Running MEng 2020-21

Aerospace Engineering (Systems) [Sep][FT][Frenchay][3yrs] - Not Running BEng (Hons) 2020-21

Aerospace Engineering with Pilot Studies (Manufacturing) [Sep][FT][Frenchay][4yrs] - Not Running MEng 2020-21

Aerospace Engineering with Pilot Studies [Sep][FT][Frenchay][4yrs] - Not Running MEng 2020-21

Aerospace Engineering with Pilot Studies (Systems) [Sep][FT][Frenchay][4yrs] - Not Running MEng 2020-21

Aerospace Engineering with Pilot Studies (Design) [Sep][FT][Frenchay][4yrs] - Not Running MEng 2020-21

Aerospace Engineering [Sep][SW][Frenchay][5yrs] MEng 2019-20

Aerospace Engineering with Pilot Studies [Sep][SW][Frenchay][5yrs] MEng 2019-20

Aerospace Engineering (Design) [Sep][SW][Frenchay][5yrs] MEng 2019-20

Aerospace Engineering (Manufacturing) [Sep][SW][Frenchay][5yrs] MEng 2019-20

Aerospace Engineering with Pilot Studies (Design) [Sep][SW][Frenchay][5yrs] MEng 2019-20

Aerospace Engineering with Pilot Studies (Manufacturing) [Sep][SW][Frenchay][5yrs] MEng 2019-20

Aerospace Engineering with Pilot Studies (Systems) [Sep][SW][Frenchay][5yrs] MEng 2019-20

Aerospace Engineering (Systems) [Sep][SW][Frenchay][5yrs] MEng 2019-20