



MODULE SPECIFICATION

Part 1: Information			
Module Title	Masters Group Project		
Module Code	UFMFXC-15-M	Level	Level 7
For implementation from	2019-20		
UWE Credit Rating	15	ECTS Credit Rating	7.5
Faculty	Faculty of Environment & Technology	Field	Engineering, Design and Mathematics
Department	FET Dept of Engin Design & Mathematics		
Module type:	Project		
Pre-requisites	None		
Excluded Combinations	None		
Co- requisites	None		
Module Entry requirements	None		

Part 2: Description
<p>Features: Module entry requirements: Engineering qualifications to Degree Level or equivalent.</p> <p>Educational Aims: See Learning Outcomes</p> <p>Outline Syllabus: Students will be provided with an outline of selected design-problems. Groups (typically 5/6 students) will choose a project from this list. The development of the final project specification is carried out by the group (with lecturer(s) feedback).</p> <p>This is a project module and the indicative content listed below is illustrative as to what would be expected to be covered by a group project.</p> <p>Design of experiments; use of controls. Pilot experiments. Logging and recording data. Evaluation of alternative solutions and methods for validating design solutions. Decision matrices.</p> <p>Design methods: the design process, and the systematic approach to design problems: requirement analysis, problem identification, problem solving methods, tools, preparation of specifications.</p> <p>Professional reporting: aimed at understanding reporting requirements for outcomes; design</p>

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requirement, experiment design and approach, decision making, impact, reflection and evaluation.

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

Teaching and Learning Methods: Formal Lectures: 6 hours

Assimilation and skill development: 35 hours

Team Mentoring: 9 hours

Project work: 100 hours

Total: 150 hours

NB: Where students are engaged in this module through distance and work based learning, contact will be replaced by engagement with electronic learning materials and suitable mentoring and e-learning support.

This is a group work module with collaborative working an essential element of a student's progress and development. Each group will be provided with a definition/specification of their project. The problem outline, consultations during the study, final assessment and feedback will be facilitated through mentoring sessions with staff supporting the project groups. Contact time may also include visits to industry and consultation 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.

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

Scheduled learning includes lectures, seminars, tutorials, project supervision, demonstration, practical classes and workshops; fieldwork; external visits; work based learning; supervised time in studio/workshop.

Independent learning includes hours engaged with essential reading, case study preparation, assignment preparation and completion etc.

Part 3: Assessment

The assessment strategy is designed to support students in their independent study, providing feedback so that each group is aware of their progress as they work towards the submission of their group report.

A mid-term technical presentation is used to check progress and identify any issues that may affect a successful completion of the project. Each group presents their alternative design concepts/solutions and a discussion (Q and A) session is used to provide feedback.

The output of the project will be a 5000 word report which will be assessed on the quality of the professional reporting and communication skills, technical aspects, research findings, methodology/approach and data analysis.

A transparent method will be in place for identifying students who are not making an appropriate level of contribution to the work of the group. This peer assessed process is moderated by the module leader and is used to rescale report marks on an individual basis if required.

The referred component B assessment will involve a reworking of the original problem, taking into account feedback provided from the first assessment and will result in a 2000 word written individual report.

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First Sit Components	Final Assessment	Element weighting	Description
Report - Component A	✓	80 %	Group report
Presentation - Component A		20 %	Group presentation (10 minutes)
Resit Components	Final Assessment	Element weighting	Description
Report - Component A	✓	100 %	Written individual report

Part 4: Teaching and Learning Methods																	
Learning Outcomes	<p>On successful completion of this module students will achieve the following learning outcomes:</p> <table border="1"> <thead> <tr> <th>Module Learning Outcomes</th> <th>Reference</th> </tr> </thead> <tbody> <tr> <td>Apply interdisciplinary knowledge to an engineering design problem</td> <td>MO1</td> </tr> <tr> <td>Investigate and incorporate practical constraints into the design and the manufacturing process</td> <td>MO2</td> </tr> <tr> <td>Critically evaluate alternative solutions within the constraints of the project specification</td> <td>MO3</td> </tr> <tr> <td>Solve open-ended problems and apply theoretical concepts and methods to challenges arising in a business environment</td> <td>MO4</td> </tr> <tr> <td>Critically evaluate the management of an interdisciplinary project and reflect on their role and contribution to project team</td> <td>MO5</td> </tr> <tr> <td>Independently research topics from academic and professional literature</td> <td>MO6</td> </tr> </tbody> </table>	Module Learning Outcomes	Reference	Apply interdisciplinary knowledge to an engineering design problem	MO1	Investigate and incorporate practical constraints into the design and the manufacturing process	MO2	Critically evaluate alternative solutions within the constraints of the project specification	MO3	Solve open-ended problems and apply theoretical concepts and methods to challenges arising in a business environment	MO4	Critically evaluate the management of an interdisciplinary project and reflect on their role and contribution to project team	MO5	Independently research topics from academic and professional literature	MO6		
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Reading List	<p>The reading list for this module can be accessed via the following link:</p> <p>https://uwe.rl.talis.com/modules/ufmfxc-15-m.html</p>																

Part 5: Contributes Towards

This module contributes towards the following programmes of study:

Mechanical Engineering [Sep][PT][Frenchay][2yrs] MSc 2018-19