



## MODULE SPECIFICATION

| Part 1: Information       |  |                    |                                     |
|---------------------------|--|--------------------|-------------------------------------|
| Module Title              | MEng Group Project                     |                    |                                     |
| Module Code               | UFMED7-30-M                            | Level              | Level 7                             |
| 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:              | Project                                |                    |                                     |
| Pre-requisites            | None                                   |                    |                                     |
| Excluded Combinations     | None                                   |                    |                                     |
| Co- requisites            | None                                   |                    |                                     |
| Module Entry requirements | None                                   |                    |                                     |

| Part 2: Description  |
|--|
| <p><b>Educational Aims:</b> See Learning Outcomes.</p> <p><b>Outline Syllabus:</b> 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.</p> <p>Areas covered by a short taught section (6 hours) include:</p> <p>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.</p> <p>Design and development programmes. Revision of design process. Client requirements. Specifications. Analysis and Modelling. Design for manufacture as well as purpose. Prototypes.</p> |

## STUDENT AND ACADEMIC SERVICES

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.

**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.

### Part 3: Assessment

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.

| First Sit Components       | Final Assessment | Element weighting | Description               |
|----------------------------|------------------|-------------------|---------------------------|
| Report - Component A       | ✓                | 80 %              | Written individual report |
| Presentation - Component A |                  | 20 %              | Oral presentation         |
| Resit Components           | Final Assessment | Element weighting | Description               |
| Report - Component A       | ✓                | 80 %              | Written individual report |
| Presentation - Component A |                  | 20 %              | Oral presentation         |

STUDENT AND ACADEMIC SERVICES

| <b>Part 4: Teaching and Learning Methods</b>        |  |                                 |  |                                 |   |                                     |  |                                       |  |   |  |                       |  |   |   |                              |   |                        |  |     |                                     |      |                        |      |   |      |  |
|---|--|---------------------------------|--|---------------------------------|---|-------------------------------------|--|---------------------------------------|--|---|--|-----------------------|--|---|---|------------------------------|---|------------------------|--|-----|-------------------------------------|------|------------------------|------|---|------|--|
| Learning Outcomes                                   | <p>On successful completion of this module students will be able to:</p> <table border="1"> <thead> <tr> <th colspan="2" style="text-align: center;"><b>Module Learning Outcomes</b></th> </tr> </thead> <tbody> <tr> <td>MO1</td> <td>The practical constraint of the design and/or manufacturing process within industrial organisations</td> </tr> <tr> <td>MO2</td> <td>How to manage interdisciplinary projects</td> </tr> <tr> <td>MO3</td> <td>An individual's role in a project team</td> </tr> <tr> <td>MO4</td> <td>Their ability to communicate concepts do their peers</td> </tr> <tr> <td>MO5</td> <td>Open-ended multi-disciplinary projects</td> </tr> <tr> <td>MO6</td> <td>Use of theoretical methods within an industrial environment</td> </tr> <tr> <td>MO7</td> <td>Alternative solutions within the constraints of the project specification</td> </tr> <tr> <td>MO8</td> <td>Open-ended projects within practical constraints and learn to apply theoretical methods in industrial situations</td> </tr> <tr> <td>MO9</td> <td>Progression to independent learning</td> </tr> <tr> <td>MO10</td> <td>Self-management skills</td> </tr> <tr> <td>MO11</td> <td>To research topics relating to the design project</td> </tr> <tr> <td>MO12</td> <td>Undertake a realistic task for which there is a strictly limited time for completion</td> </tr> </tbody> </table> | <b>Module Learning Outcomes</b> |  | 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 |
| <b>Module Learning Outcomes</b>                     |  |                                 |  |                                 |   |                                     |  |                                       |  |   |  |                       |  |   |   |                              |   |                        |  |     |                                     |      |                        |      |   |      |  |
| 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   |                                 |  |                                 |   |                                     |  |                                       |  |   |  |                       |  |   |   |                              |   |                        |  |     |                                     |      |                        |      |   |      |  |
| Contact Hours                                       | <table border="1"> <thead> <tr> <th colspan="2" style="text-align: center;"><b>Contact Hours</b></th> </tr> </thead> <tbody> <tr> <td colspan="2" style="text-align: center;"><b>Independent Study Hours:</b></td> </tr> <tr> <td style="text-align: center;">Independent study/self-guided study</td> <td style="text-align: center;">294</td> </tr> <tr> <td style="text-align: center;"><b>Total Independent Study Hours:</b></td> <td style="text-align: center;">294</td> </tr> <tr> <td colspan="2" style="text-align: center;"><b>Scheduled Learning and Teaching Hours:</b></td> </tr> <tr> <td style="text-align: center;">Face-to-face learning</td> <td style="text-align: center;">6</td> </tr> <tr> <td style="text-align: center;"><b>Total Scheduled Learning and Teaching Hours:</b></td> <td style="text-align: center;">6</td> </tr> <tr> <td style="text-align: center;"><b>Hours to be allocated</b></td> <td style="text-align: center;">300</td> </tr> <tr> <td style="text-align: center;"><b>Allocated Hours</b></td> <td style="text-align: center;">300</td> </tr> </tbody> </table>   | <b>Contact Hours</b>            |  | <b>Independent Study Hours:</b> |   | Independent study/self-guided study | 294                                      | <b>Total Independent Study Hours:</b> | 294                                    | <b>Scheduled Learning and Teaching Hours:</b> |  | Face-to-face learning | 6                                      | <b>Total Scheduled Learning and Teaching Hours:</b> | 6   | <b>Hours to be allocated</b> | 300   | <b>Allocated Hours</b> | 300  |     |                                     |      |                        |      |   |      |  |
| <b>Contact Hours</b>                                |  |                                 |  |                                 |   |                                     |  |                                       |  |   |  |                       |  |   |   |                              |   |                        |  |     |                                     |      |                        |      |   |      |  |
| <b>Independent Study Hours:</b>                     |  |                                 |  |                                 |   |                                     |  |                                       |  |   |  |                       |  |   |   |                              |   |                        |  |     |                                     |      |                        |      |   |      |  |
| Independent study/self-guided study                 | 294  |                                 |  |                                 |   |                                     |  |                                       |  |   |  |                       |  |   |   |                              |   |                        |  |     |                                     |      |                        |      |   |      |  |
| <b>Total Independent Study Hours:</b>               | 294  |                                 |  |                                 |   |                                     |  |                                       |  |   |  |                       |  |   |   |                              |   |                        |  |     |                                     |      |                        |      |   |      |  |
| <b>Scheduled Learning and Teaching Hours:</b>       |  |                                 |  |                                 |   |                                     |  |                                       |  |   |  |                       |  |   |   |                              |   |                        |  |     |                                     |      |                        |      |   |      |  |
| Face-to-face learning                               | 6  |                                 |  |                                 |   |                                     |  |                                       |  |   |  |                       |  |   |   |                              |   |                        |  |     |                                     |      |                        |      |   |      |  |
| <b>Total Scheduled Learning and Teaching Hours:</b> | 6  |                                 |  |                                 |   |                                     |  |                                       |  |   |  |                       |  |   |   |                              |   |                        |  |     |                                     |      |                        |      |   |      |  |
| <b>Hours to be allocated</b>                        | 300  |                                 |  |                                 |   |                                     |  |                                       |  |   |  |                       |  |   |   |                              |   |                        |  |     |                                     |      |                        |      |   |      |  |
| <b>Allocated Hours</b>                              | 300  |                                 |  |                                 |   |                                     |  |                                       |  |   |  |                       |  |   |   |                              |   |                        |  |     |                                     |      |                        |      |   |      |  |
| Reading List  | <p>The reading list for this module can be accessed via the following link:</p> <p><a href="https://uwe.rl.talis.com/modules/ufmed7-30-m.html">https://uwe.rl.talis.com/modules/ufmed7-30-m.html</a></p>   |                                 |  |                                 |   |                                     |  |                                       |  |   |  |                       |  |   |   |                              |   |                        |  |     |                                     |      |                        |      |   |      |  |