**Module Descriptor**

| | | | |
|---|---|---|---|
| **Title** | Final Year Project | | |
| **Session** | 2025/26 | **Status** | Published |
| **Code** | ENGG10001 | **SCQF Level** | 10 |
| **Credit Points** | 40 | **ECTS (European Credit Transfer Scheme)** | 20 |
| **School** | **Computing, Engineering and Physical Sciences** | | |
| **Module Co-ordinator** | A Uzzaman | | |

**Summary of Module**

This module is supported by a series of lectures providing project methodology and project support. Individual project topics will normally arise from one of three sources.

i) the industrial or educational research interests of a member of staff

ii) a field of practical interest identified by the student him/herself

iii) an area of industrial relevance to the student's vocational training

The individual project will be carried out at the University, with personal guidance being provided by a project supervisor and a project moderator. The supervisor will provide day-to-day management, whilst the moderator will give access to broader specialist assistance. The student will hold regular meetings with the supervisor and/or the moderator.The project will be supported with a series of lectures and workshops which will be delivered in the first semester.

During the course of this module students will develop their UWS Graduate Attributes (https://www.uws.ac.uk/current- students/your-graduate-attributes/);

Universal: academic attributes (critical thinking, analytical & inquiring); professional attributes (research-minded).

Work-Ready: academic attributes (knowledge of the project's specific subject(s), relevant ICT skills, and problem solving skills); personal attributes (motivated).

Successful : academic attributes (autonomous, and innovative); personal attributes (resilient); professional attributes (driven).

This module has been reviewed and updated, taking cognisance of the University's Curriculum Framework principles. Examples of this are found within the module such as active and engaging practical testing laboratories, module assessment which reflects industry design activities development of digital intelligence meta-skills, learning synergies across modules and levels of study, self-direction of curriculum, one-one supervision providing concurrent weekly feedback on progress, use of real-world practical student generated data, assessment of Continuing Professional Development allowing students to focus on and document their personal professional development utilising a PSRB template. In the context of Curriculum Framework this module may be viewed as a capstone module.

| Module Delivery Method | On-Campus[1] ☒ | Hybrid[2] ☐ | Online[3] ☐ | Work -Based Learning[4] ☐ |
|---|---|---|---|---|
| **Campuses for Module Delivery** | ☐ Ayr<br>☐ Dumfries | ☒ Lanarkshire<br>☐ London<br>☒ Paisley | ☐ Online / Distance Learning<br>☐ Other (specify) | |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Terms for Module Delivery** | Term 1 | ☐ | Term 2 | ☐ | Term 3 | ☐ |
| **Long-thin Delivery over more than one Term** | Term 1 – Term 2 | ☒ | Term 2 – Term 3 | ☐ | Term 3 – Term 1 | ☐ |

| **Learning Outcomes** | |
|---|---|
| **L1** | Apply current design philosophies and prepare design solutions to an engineering applications, both individually and as a member of a group. |
| **L2** | Plan, organise and carry out an in-depth independent study in an appropriate design/engineering area. |
| **L3** | Prepare and submit a technical report on the individual project. |
| **L4** | Prepare and give an oral presentation of the project and oral defence of the work. |
| **L5** | N/A |

| **Employability Skills and Personal Development Planning (PDP) Skills** | |
|---|---|
| **SCQF Headings** | **During completion of this module, there will be an opportunity to achieve core skills in:** |
| **Knowledge and Understanding (K and U)** | **SCQF 10**<br>Developing knowledge that covers and integrates most of the principal areas, features, boundaries, terminology and conventions of two different engineering areas. |
| **Practice: Applied Knowledge and Understanding** | **SCQF 10**<br>Define and execute a project of research, development and/or investigation and identify and implement relevant outcomes.<br>Select and apply appropriate computational and analytical techniques to model complex problems, discussing the limitations of the techniques employed. |

[1] Where contact hours are synchronous/ live and take place fully on campus. Campus-based learning is focused on providing an interactive learning experience supported by a range of digitally-enabled asynchronous learning opportunities including learning materials, resources, and opportunities provided via the virtual learning environment. On-campus contact hours will be clearly articulated to students.

[2] The module includes a combination of synchronous/ live on-campus and online learning events. These will be supported by a range of digitally-enabled asynchronous learning opportunities including learning materials, resources, and opportunities provided via the virtual learning environment. On-campus and online contact hours will be clearly articulated to students.

[3] Where all learning is solely delivered by web-based or internet-based technologies and the participants can engage in all learning activities through these means. All required contact hours will be clearly articulated to students.

[4] Learning activities where the main location for the learning experience is in the workplace. All required contact hours, whether online or on campus, will be clearly articulated to students

| | |
|---|---|
| | Select and critically evaluate technical literature and other sources of information to solve complex problems<br><br>Design solutions for complex problems that evidence some originality and meet a combination of societal, user, business and customer needs as appropriate. This will involve consideration of applicable health & safety, diversity, inclusion, cultural, societal, environmental and commercial matters, codes of practice and industry standards.<br><br>Apply an integrated or systems approach to the solution of complex problems. Evaluate the environmental and societal impact of solutions to complex problems (to include the entire life-cycle of a product or process) and minimise adverse impacts. Use a risk management process to identify, evaluate and mitigate risks (the effects of uncertainty) associated with a particular project or activity.<br><br>Discuss the role of quality management systems and continuous improvement in the context of complex problems.<br><br>Apply knowledge of engineering management principles, commercial context, project and change management, and relevant legal matters including intellectual property rights |
| **Generic Cognitive skills** | **SCQF 10**<br><br>Critically review and consolidate knowledge, skills, practices and thinking in two specific engineering areas. |
| **Communication, ICT and Numeracy Skills** | **SCQF 10**<br><br>Communicate effectively on complex engineering matters with technical and non- technical audiences, evaluating the effectiveness of the methods used |
| **Autonomy, Accountability and Working with Others** | **SCQF 10**<br><br>Exercising autonomy and initiative in addressing an engineering problem.<br><br>Use of CPD Development Log to aid identification of personal strengths, weaknesses and personal targets. Where possible this will be developed from activities undertaken in other modules with synergies to the subject content.<br><br>Identify and analyse ethical concerns and make reasoned ethical choices informed by professional codes of conduct |

| **Prerequisites** | **Module Code** | **Module Title** |
|---|---|---|
| | **Other** | |
| **Co-requisites** | **Module Code** | **Module Title** |

| **Learning and Teaching** |
|---|
| In line with current learning and teaching principles, a 20-credit module includes 200 learning hours, normally including a minimum of 36 contact hours and maximum of 48 contact hours.<br><br>The learning and teaching for this module will be delivered via a series of tutorials in the form of group discussions. |

| **Learning Activities**<br>During completion of this module, the learning activities undertaken to achieve the module learning outcomes are stated below: | **Student Learning Hours**<br>(Note: Learning hours include both contact hours and hours spent on other learning activities) |
|---|---|
| Lecture / Core Content Delivery | 12 |
| Tutorial / Synchronous Support Activity | 15 |
| Independent Study | 373 |
| n/a | 0 |
| n/a | 0 |
| n/a | 0 |
| **TOTAL** | 400 |

| **Indicative Resources** |
|---|
| **The following materials form essential underpinning for the module content and ultimately for the learning outcomes:**<br>Various handout materials.<br>Other material is dependent on individual project title. |
| **(N.B. Although reading lists should include current publications, students are advised (particularly for material marked with an asterisk*) to wait until the start of session for confirmation of the most up-to-date material)** |

| **Attendance and Engagement Requirements** |
|---|
| **In line with the Student Attendance and Engagement Procedure, Students are academically engaged if they are regularly attending and participating in timetabled on-campus and online teaching sessions, asynchronous online learning activities, course-related learning resources, and complete assessments and submit these on time.**<br>**For the purposes of this module, academic engagement equates to the following:**<br>The School of Computing, Engineering and Physical Sciences considers attendance and engagement to mean a commitment to attending, and engaging in, timetabled sessions. Students will scan their attendance, via the attendance scanners, each time they are on-campus, they will have their attendance recorded in class and they will be expected to login to the VLE several times per week. Students who are unable to attend a timetabled session, due to illness or other circumstance, should notify their Programme Leader. Across the School an 80% attendance threshold is set. Students who fall below this, will be referred to the Student Success Team to see how they can be best supported in their studies. |

| **Equality and Diversity** |
|---|
| **The University's Equality, Diversity and Human Rights Procedure can be accessed at the following link: UWS Equality, Diversity and Human Rights Code.**<br>Aligned with the University's commitment to equality and diversity, this module supports equality of opportunity for students from all backgrounds and learning needs. Using the VLE, |

| |
|---|
| material will be presented electronically in formats that allow flexible access and manipulation of content. This module complies with University regulations and guidance on inclusive learning and teaching practice. This module has lab-based teaching and as such you are advised to speak to the Module Co-ordinator to ensure that specialist assistive equipment, support provision and adjustment to assessment practice can be put in place, in accordance with the University's policies and regulations. |
| **(N.B. Every effort will be made by the University to accommodate any equality and diversity issues brought to the attention of the School)** |

**Supplemental Information**

| | |
|---|---|
| **Divisional Programme Board** | **Engineering Physical Sciences** |
| **Overall Assessment Results** | ☐ **Pass / Fail** ☒ **Graded** |
| **Module Eligible for Compensation** | ☐ **Yes** ☒ **No**<br>**If this module is eligible for compensation, there may be cases where compensation is not permitted due to programme accreditation requirements. Please check the associated programme specification for details.** |
| **School Assessment Board** | Design |
| **Moderator** | T Leslie |
| **External Examiner** | M Ghaleeh |
| **Accreditation Details** | This module is part of the IMechE accredited programmes MEng/BEng (Hons) Aircraft and MEng/BEng (Hons) Mechanical Engineering. |
| **Module Appears in CPD catalogue** | ☐ **Yes** ☒ **No** |
| **Changes / Version Number** | 3.12<br>Module Descriptor copied to 2025/26 template, resources list updated to reflect ILR feedback, Attendance and Engagement and EDI statements updated. |

| **Assessment (also refer to Assessment Outcomes Grids below)** |
|---|
| **Assessment 1** |
| Written Dissertation (Project Report) (60%) |
| **Assessment 2** |
| Project Activity (20%) - Workbook/ Laboratory notebook/ Diary/ Training log/ Learning log (5%)- LOs 1,2,3<br>Performance/ Studio work/ Placement/ WBL/ WRL assessment (15%)- LOs-1,2,3 |
| **Assessment 3** |
| Oral Presentation and Defence (20%) |
| (N.B. (i) Assessment Outcomes Grids for the module (one for each component) can be found below which clearly demonstrate how the learning outcomes of the module will be assessed.<br>(ii) An indicative schedule listing approximate times within the academic calendar when assessment is likely to feature will be provided within the Student Module Handbook.) |

| Component 1 | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Assessment Type** | **LO1** | **LO2** | **LO3** | **LO4** | **LO5** | **Weighting of Assessment Element (%)** | **Timetabled Contact Hours** |
| Dissertation/ Project report/ Thesis | ☒ | ☒ | ☒ | ☐ | ☐ | 60 | 0 |

| Component 2 | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Assessment Type** | **LO1** | **LO2** | **LO3** | **LO4** | **LO5** | **Weighting of Assessment Element (%)** | **Timetabled Contact Hours** |
| Performance/ Studio work/ Placement/ WBL/ WRL assessment | ☐ | ☒ | ☒ | ☐ | ☐ | 20% | 0 |

| Component 3 | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Assessment Type** | **LO1** | **LO2** | **LO3** | **LO4** | **LO5** | **Weighting of Assessment Element (%)** | **Timetabled Contact Hours** |
| Clinical/ Fieldwork/ Practical skills assessment/ Debate/ Interview/ Viva voce/ Oral | ☐ | ☐ | ☐ | ☒ | ☐ | 20 | |
| **Combined total for all components** | | | | | | 100% | 0 hours |

**Change Control**

| **What** | **When** | **Who** |
|---|---|---|
| Module Descriptor copied to 2025/26 template, resources list updated to reflect ILR feedback, Attendance and Engagement and EDI statements updated. | March 2025 | A Uzzaman |
| | | |
| | | |
| | | |
| | | |