Module Descriptor

Title	Group Project for MEng		
Session	2025/26	**Status**	Published
Code	ENGG11050	**SCQF Level**	11
Credit Points	40	**ECTS (European Credit Transfer Scheme)**	20
School	**Computing, Engineering and Physical Sciences**		
Module Co-ordinator	A Uzzaman		

Summary of Module

The module coordinator will form students into groups and allocate a project topic based on academic or industrial research, development, or testing. An academic project supervisor will be allocated. The groups will develop a detailed project proposal and a plan agreeing the deliverables and the schedule with the supervisor (client). Students will apply their project management, technical and if required health and safety risk assessment skills and deliver the project within the agreed scope and time. The group will be assessed at an interim and final stage based on reports and presentations. The group will also disseminate the project through a website which will be assessed. Peer marking of the students will contribute to the student's marks. Students will be expected to reflect on their project deliverables as well as their experience in team working and project management.

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 and analytical & inquiring mind; Professional: collaborative and research-minded; Work-Ready: Academic attributes - knowledge of subject area and relevant skills, problem-solver, motivated and effective communicator, potential leader that is enterprising and ambitious; Successful: autonomous, innovative, driven and resilient.

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 module assessment which reflects industry activities, self-direction of curriculum, small group supervision providing concurrent feedback on progress, development of digital intelligence meta-skills, and the use of real-world practical student generated data. 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 ☐ Dumfries	☐ Lanarkshire ☐ London ☒ Paisley	☐ Online / Distance Learning ☐ 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	Undertake a complex technical project based on teamwork in the context of an Engineering Programme and apply research and development, apply their project management and planning skills, demonstrate a critical understanding of the subject specialism. Apply critical analysis, evaluation and synthesis and also apply project technical risk and health and safety risk assessment.
L2	Organise own and the work of others as well as working with others in a team situation and reflecting on their role. Apply their knowledge, skills and understanding to plan and execute a significant project of research, investigation or development. Demonstrate leadership, initiative and contributions to the project and draw a critical reflection.
L3	Develop a multifaceted engineering project proposal and a report to communicate the project to a supervisor / client using their advanced and specialised skills as appropriate.
L4	Prepare effective communication of team's progress and ideas to a supervisor, client or a panel, using a wide range of ICT applications.
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 11** Demonstrate and/or work with: Knowledge that covers and integrates most, if not all, of the main areas of the subject/discipline/sector – including their features, boundaries, terminology and conventions.

[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

	A critical understanding of the principal theories, concepts and principles. A critical understanding of a range of specialised theories, concepts and principles. Extensive, detailed and critical knowledge and understanding in one or more specialisms, much of which is at, or informed by, developments at the forefront.
Practice: Applied Knowledge and Understanding	**SCQF 11** Apply knowledge, skills and understanding: In using a significant range of the principal professional skills, techniques, practices and/or materials associated with the subject/discipline/sector. In using a range of specialised skills, techniques, practices and/or materials that are at the forefront of, or informed by forefront developments. In applying a range of standard and specialised research and/or equivalent instruments and techniques of enquiry. In planning and executing a significant project of research, investigation or development. Select and apply appropriate materials, equipment, engineering technologies and processes, recognising their limitations. Discuss the role of quality management systems and continuous improvement in the context of complex problems. Apply knowledge of engineering management principles, commercial context, project and change management, and relevant legal matters including intellectual property rights. In demonstrating originality and/or creativity, including in practices. SCQF Level 11 Apply knowledge, skills and understanding: In using a significant range of the principal professional skills, techniques, practices and/or materials associated with the subject/discipline/sector. In using a range of specialised skills, techniques, practices and/or materials that are at the forefront of, or informed by forefront developments. In applying a range of standard and specialised research and/or equivalent instruments and techniques of enquiry. In planning and executing a significant project of research, investigation or development. Select and apply appropriate materials, equipment, engineering technologies and processes, recognising their limitations. Discuss the role of quality management systems and continuous improvement in the context of complex problems. Apply knowledge of engineering management principles, commercial context, project and change management, and relevant legal matters including intellectual property rights. In demonstrating originality and/or creativity, including in practices.

	To practise in a wide and often unpredictable variety of professional level contexts. Select and apply appropriate computational and analytical techniques to model complex problems, discussing the limitations of the techniques employed. Select and critically evaluate technical literature and other sources of information to solve complex problems. 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. 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.
Generic Cognitive skills	**SCQF 11** Apply critical analysis, evaluation and synthesis to forefront issues, or issues that are informed by forefront developments in the subject/discipline/sector. Identify, conceptualise and define new and abstract problems and issues. Develop original and creative responses to problems and issues. Critically review, consolidate and extend knowledge, skills, practices and thinking in a subject/discipline/sector. Deal with complex issues and make informed judgements in situations in the absence of complete or consistent data/information.
Communication, ICT and Numeracy Skills	**SCQF 11** Use a wide range of routine skills and a range of advanced and specialised skills as appropriate to a subject/discipline/sector, for example: Communicate, using appropriate methods, to a range of audiences with different levels of knowledge/expertise. Communicate with peers, more senior colleagues and specialists. Use a wide range of ICT applications to support and enhance work at this level and adjust features to suit purpose. Undertake critical evaluations of a wide range of numerical and graphical data.
Autonomy, Accountability and Working with Others	**SCQF 11** Exercise substantial autonomy and initiative in professional and equivalent activities. Take responsibility for own work and/or significant responsibility for the work of others. Take significant responsibility for a range of resources. Work in a peer relationship with specialist practitioners. Demonstrate leadership and/or initiative and make an identifiable contribution to change and development and/or new thinking.

	Practise in ways which draw on critical reflection on own and others' roles and responsibilities Identify and analyse ethical concerns and make reasoned ethical choices informed by professional codes of conduct. Adopt an inclusive approach to engineering practice and recognise the responsibilities, benefits and importance of supporting equality, diversity and inclusion. Function effectively as an individual, and as a member or leader of a team. Evaluate effectiveness of own and team performance. Communicate effectively on complex engineering matters with technical and non- technical audiences, evaluating the effectiveness of the methods used. Plan and record self-learning and development as the foundation for lifelong learning/CPD.

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. The learning and teaching for this module will be delivered via a series of tutorials in the form of group discussions.	
Learning Activities During completion of this module, the learning activities undertaken to achieve the module learning outcomes are stated below:	**Student Learning Hours** (Note: Learning hours include both contact hours and hours spent on other learning activities)
Lecture / Core Content Delivery	6
Tutorial / Synchronous Support Activity	24
Independent Study	370
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: Access to library services and journals specific to the project will be required.
(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. **For the purposes of this module, academic engagement equates to the following:** 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. 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. Specialist assistive equipment, support provision and adjustment to assessment practice 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** **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	O Obeid
External Examiner	E Tingas
Accreditation Details	This module is part of the IMechE accredited programmes BEng/MEng (Hons) Aircraft Engineering and BEng/MEng (Hons) Mechanical Engineering
Module Appears in CPD catalogue	☐ **Yes** ☒ **No**
Changes / Version Number	1.07

	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
Assessment Category 1: Dissertation (Group) Final report worth 50% of the final mark.
Assessment 2
Assessment Category 2: Presentation Interim presentation worth 10% of the final mark and final presentation worth 15% of the final mark.
Assessment 3
Assessment Category 3: Coursework Continuous assessment in the form of website design worth 10% (LOs 1-4) of the final mark and CPD Log worth 15% (LOs 1-4) of the final mark.
(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. (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	☒	☒	☒	☒	☐	50	0

Component 2							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
Presentation	☒	☒	☒	☒	☐	25	2

Component 3							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
Coursework	☒	☒	☒	☒	☐	25	

Combined total for all components						100%	2 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