

## University of the West of Scotland

## Module Descriptor

Session: 2024/25

<b>Title of Module: Final Year Project</b>			
<b>Code: ENGG10001</b>	<b>SCQF Level: 10 (Scottish Credit and Qualifications Framework)</b>	<b>Credit Points: 40</b>	<b>ECTS: 10 (European Credit Transfer Scheme)</b>
<b>School:</b>	School of Computing Engineering and Physical Sciences		
<b>Module Co-ordinator:</b>	Dr Asraf Uzzaman		
<b>Summary of Module</b>			
<p>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.</p> <ul style="list-style-type: none"> <li>i) the industrial or educational research interests of a member of staff</li> <li>ii) a field of practical interest identified by the student him/herself</li> <li>iii) an area of industrial relevance to the student's vocational training</li> </ul> <p>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.</p> <p>During the course of this module students will develop their UWS Graduate Attributes (<a href="https://www.uws.ac.uk/current-students/your-graduate-attributes/">https://www.uws.ac.uk/current-students/your-graduate-attributes/</a>);</p> <p>Universal: academic attributes (critical thinking, analytical &amp; inquiring); professional attributes (research-minded).</p> <p>Work-Ready: academic attributes (knowledge of the project's specific subject(s), relevant ICT skills, and problem solving skills); personal attributes (motivated).</p> <p>Successful : academic attributes (autonomous, and innovative); personal attributes (resilient); professional attributes (driven).</p> <p>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.</p>			

Face-To-Face	Blended	Fully Online	HybridC	Hybrid 0	Work-Based Learning
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>See Guidance Note for details.</b>					

Campus(es) for Module Delivery						
The module will <b>normally</b> be offered on the following campuses / or by Distance/Online Learning: (Provided viable student numbers permit) (tick as appropriate)						
Paisley:	Ayr:	Dumfries:	Lanarkshire:	London:	Distance/Online Learning:	Other:
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Term(s) for Module Delivery					
(Provided viable student numbers permit).					
Term 1		Term 2		Term 3	
	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input type="checkbox"/>

Learning Outcomes: (maximum of 5 statements)	
At the end of this module the student will be able to:	
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.

Employability Skills and Personal Development Planning (PDP) Skills	
<b>SCQF Headings</b>	During completion of this module, there will be an opportunity to achieve core skills in:
Knowledge and Understanding (K and U)	SCQF Level <b>10</b>  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	<p><b>SCQF Level 10</b></p> <p>Define and execute a project of research, development and/or investigation and identify and implement relevant outcomes.</p> <p>Select and apply appropriate computational and analytical techniques to model complex problems, discussing the limitations of the techniques employed.</p> <p>Select and critically evaluate technical literature and other sources of information to solve complex problems</p> <p>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 &amp; safety, diversity, inclusion, cultural, societal, environmental and commercial matters, codes of practice and industry standards.</p> <p>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.</p> <p>Discuss the role of quality management systems and continuous improvement in the context of complex problems.</p> <p>Apply knowledge of engineering management principles, commercial context, project and change management, and relevant legal matters including intellectual property rights</p>
Generic Cognitive skills	<p><b>SCQF Level 10</b></p> <p>Critically review and consolidate knowledge, skills, practices and thinking in two specific engineering areas.</p>
Communication, ICT and Numeracy Skills	<p><b>SCQF Level 10</b></p> <p>Communicate effectively on complex engineering matters with technical and non- technical audiences, evaluating the effectiveness of the methods used.</p>
Autonomy, Accountability and Working with others	<p><b>SCQF Level 10</b></p> <p>Exercising autonomy and initiative in addressing an engineering problem.</p> <p>Use of CPD Development Log to aid identification of personal strengths, weaknesses and personal targets. Where possible</p>

	this will be developed from activities undertaken in a Level 8 module with synergies to the subject content.	
	Identify and analyse ethical concerns and make reasoned ethical choices informed by professional codes of conduct	
<b>Pre-requisites:</b>	Before undertaking this module the student should have undertaken the following:	
	<b>Module Code:</b>	<b>Module Title:</b>
	<b>Other:</b>	
<b>Co-requisites</b>	<b>Module Code:</b>	<b>Module Title:</b>

\*Indicates that module descriptor is not published.

<b>Learning and Teaching</b>	
The learning and teaching activity for this module include lectures, company visits, topic research and individual and group activities.	
<b>Learning Activities</b> During completion of this module, the learning activities undertaken to achieve the module learning outcomes are stated below:	<b>Student Learning Hours</b> (Normally totalling 200 hours): (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
	Hours Total 400
<b>**Indicative Resources: (eg. Core text, journals, internet access)</b>	
The following materials form essential underpinning for the module content and ultimately for the learning outcomes:  Various handout materials.  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.

### 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](#).

(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

<b>Divisional Programme Board</b>	Engineering and Physical Sciences
<b>Assessment Results (Pass/Fail)</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
<b>School Assessment Board</b>	Engineering
<b>Moderator</b>	Tony Leslie
<b>External Examiner</b>	M Ghaleeh
<b>Accreditation Details</b>	This module is part of the IMechE accredited programmes BEng/Meng (Hons) Aircraft and BEng/Meng (Hons) Mechanical Engineering.
<b>Changes/Version Number</b>	3.11 (was 3.10)  Module Delivery Changed to Face-To-Face from Hybrid C.

### Assessment: (also refer to Assessment Outcomes Grids below)

The individual project will be assessed by three main elements:

Written Dissertation (Project Report) (60%)

Project Activity (20%)

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.  
(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.)

**Assessment Outcome Grids (See Guidance Note)**

<b>Component 1</b>						
<b>Assessment Type (Footnote B.)</b>	<b>Learning Outcome (1)</b>	<b>Learning Outcome (2)</b>	<b>Learning Outcome (3)</b>	<b>Learning Outcome (4)</b>	<b>Weighting (%) of Assessment Element</b>	<b>Timetabled Contact Hours</b>
Dissertation/ Project report/ Thesis	✓	✓	✓		60	0

<b>Component 2</b>						
<b>Assessment Type (Footnote B.)</b>	<b>Learning Outcome (1)</b>	<b>Learning Outcome (2)</b>	<b>Learning Outcome (3)</b>	<b>Learning Outcome (4)</b>	<b>Weighting (%) of Assessment Element</b>	<b>Timetabled Contact Hours</b>
Workbook/ Laboratory notebook/ Diary/ Training log/ Learning log	✓	✓	✓		5	0
Performance/ Studio work/ Placement/ WBL/ WRL assessment	✓	✓	✓		15	0

<b>Component 3</b>						
<b>Assessment Type (Footnote B.)</b>	<b>Learning Outcome (1)</b>	<b>Learning Outcome (2)</b>	<b>Learning Outcome (3)</b>	<b>Learning Outcome (4)</b>	<b>Weighting (%) of Assessment Element</b>	<b>Timetabled Contact Hours</b>
Clinical/ Fieldwork/ Practical skills assessment/ Debate/ Interview/ Viva voce/ Oral				✓	10	0
Presentation				✓	10	0
<b>Combined Total for All Components</b>					<b>100%</b>	<b>0 hours</b>