

University of the West of Scotland

Module Descriptor

Session: 2024/25

Title of Module: Group Project - Interact			
Code: ENGG09017	SCQF Level: 9 (Scottish Credit and Qualifications Framework)	Credit Points: 20	ECTS: 10 (European Credit Transfer Scheme)
School:	School of Computing, Engineering and Physical Sciences		
Module Co-ordinator:	Andrzej Wrzesien		
Summary of Module			
<p>The group project is specifically developed for integrated design with students working in groups. The student works as part of an interdisciplinary team of a student architect, a student civil engineer, and possibly also a student quantity surveyor. The student keeps a diary of interactions between team members as well as recording their own contribution to the team solution.</p> <p>A number of introductory lectures are given which provide relevant background and deal with any unusual Group Project work in the design brief. Students of different disciplines are required to support each other through design iterations by conducting independent research. Teams' progress is monitored via weekly meetings with project tutors and via frequent review meetings. The review meetings are chaired by an industry panel consisting of structural engineers, quantity surveyors and architects.</p> <ul style="list-style-type: none"> • The civil engineering students are given information on the site of the development. They must undertake an initial evaluation, which will include an evaluation of site access, desk study of ground conditions, sustainability issues, potentials Health and Safety risks that can be avoided/mitigation through appropriate design, etc. • Each team is required to propose structural engineering solutions with approximate member sizing and the analysis model in the general structural analysis software. For the preferred scheme, each team is also required to prepare layout drawings with typical working details. A written appraisal of the problem and the solutions is presented. • All the interdisciplinary teams will undertake a verbal presentation, to last approximately 10 minutes. Teams must give an overview of their project and will both promote and defend their design in a question and answer session held by a multi-disciplinary review panel consisting, industry practitioners. • This module will work to develop a number of the following key 'I am UWS' graduate attributes: Critical thinker, Analytical, Inquiring, Collaborative, Research-minded, Knowledgeable, Effective communicator, Autonomous, Problem solver, Innovative and Driven. 			

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

Campus(es) for Module Delivery						
The module will normally 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 type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Add name

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

Learning Outcomes: (maximum of 5 statements) These should take cognisance of the SCQF level descriptors and be at the appropriate level for the module. At the end of this module the student will be able to:	
L1	To carry out a design, classify and describe a performance of a structural system using qualitative or quantitative analytical methods, and modelling techniques.
L2	To conceive, critically analyse and synthesise a creative solution to the structural design of a building as a part multi-disciplinary team.
L3	To write an engineering type report summarising appraisal of different design options reflecting public perception, aesthetics, Health & Safety and sustainable goals to a Civil Engineering client.
L4	To prepare and deliver a presentation to communicate the main features of a proposed development to a client.

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:

<p>Knowledge and Understanding (K and U)</p>	<p>SCQF Level 9</p> <p>Demonstrate further knowledge and understanding of essential facts, concepts, theories and principles of civil engineering.</p> <p>Further develop the appreciation of the wider multidisciplinary engineering context and its underlying principles.</p> <p>Appreciate the social, environmental, ethical, economic and commercial considerations affecting the exercise of engineering judgment.</p>	
<p>Practice: Applied Knowledge and Understanding</p>	<p>SCQF Level 9</p> <p>Be able to comprehend the broad picture and thus work with an appropriate level of detail.</p> <p>Possess knowledge, understanding and practical engineering skills acquired through work carried out in laboratories, through individual and group project work, through design work and through supervised work experience.</p> <p>Use creativity and innovation in a practical context.</p>	
<p>Generic Cognitive skills</p>	<p>SCQF Level 9</p> <p>Be able to demonstrate creative and innovative ability in the synthesis of solutions and apply appropriate quantitative science and engineering tools to the analysis of problems.</p> <p>Ability to apply a systems approach to engineering problems through know-how of the application of the relevant technologies.</p> <p>Be able to define a design problem, identify constraints and design solutions according to customer and user needs.</p> <p>Ability to use appropriate design codes of practice and industry standards and ensure fitness for purpose for a design.</p>	
<p>Communication, ICT and Numeracy Skills</p>	<p>SCQF Level 9</p> <p>Further develop practical engineering skills acquired through use of computer software in design, project management and drawing.</p>	
<p>Autonomy, Accountability and Working with others</p>	<p>SCQF Level 9</p> <p>Appreciate the social, environmental, ethical, economic and commercial considerations affecting the exercise of engineering judgment.</p> <p>Work with others to develop engineering solutions.</p>	
<p>Pre-requisites:</p>	<p>Before undertaking this module the student should have undertaken the following:</p>	
	<p>Module Code:</p>	<p>Module Title:</p>
	<p>Other:</p>	

Co-requisites	Module Code: ENGG09004	Module Title: Project Management
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*Indicates that module descriptor is not published.

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.	
Learning Activities During completion of this module, the learning activities undertaken to achieve the module learning outcomes are stated below:	Student Learning Hours (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	12
Laboratory/Practical Demonstration/Workshop	24
Independent Study	152
	200 Hours Total
**Indicative Resources: (eg. Core text, journals, internet access)	
<p>The following materials form essential underpinning for the module content and ultimately for the learning outcomes:</p> <p>SOFTWARE: Robot Structural Analysis Professional, by Autodesk.</p> <p>Health & Safety Reading List: PENDLEBURY, M., BRACE, C., GIBB, A., GYI, D. & GILBERTSON, A. L. 2008. C670 Site health handbook. . Second ed. London: CIRIA. BIELBY, S. & GILBERTSON, A. L. 2008. C669 Site health handbook. . Fourth ed. London: CIRIA. HEALTH AND SAFETY EXECUTIVE 2006. HSG 150, Health and safety in construction. Third ed. London: Crown. GILBERTSON, A. L. 2015. C755 CDM 2015 – construction work sector guidance for designers,. Fourth ed. London: CIRIA. THE INSTITUTION OF STRUCTURAL ENGINEERS 2013. Risk in structural engineering,. Fourth ed. London: IStructE. HEALTH AND SAFETY EXECUTIVE 2015. Managing health and safety in construction. Construction (Design and Management) Regulations 2015. London: Crown.</p>	

ANDREW ORTON 1998, The Way We Build Now, E & FN Spon.

Please ensure the list is kept short and current. Essential resources should be included, broader resources should be kept for module handbooks / Aula VLE.

Resources should be listed in Right Harvard referencing style or agreed professional body deviation and in alphabetical order.

(*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:

Attend scheduled learning activities,

Submitting module assessments.

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](#).

Please ensure any specific requirements are detailed in this section. Module Co-ordinators should consider the accessibility of their module for groups with protected characteristics..

(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
Assessment Results (Pass/Fail)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

School Assessment Board	Civil Engineering and Quality Management
Moderator	A. Earij
External Examiner	J. Oti
Accreditation Details	This module is accredited by the Joint Board of Moderators as part of BEng (Hons) Civil Engineering
Changes/Version Number	3.11 V. 3.11 Covid 19 references removed. Moderator changed to A. Earij. Accreditation details adjusted. Assessment divided into 3 components

Assessment: (also refer to Assessment Outcomes Grids below)
Assessment 1 – Individual Notebook & Diary (50%)
Assessment 2 – Team Report (40%)
Assessment 3 – Team Presentation (10%)
(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)

Component 1						
Assessment Type (Footnote B.)	Learning Outcome (1)	Learning Outcome (2)	Learning Outcome (3)	Learning Outcome (4)	Weighting (%) of Assessment Element	Timetabled Contact Hours
Workbook/ Diary/ Training log	✓	✓	✓		50	0

Component 2						
Assessment Type (Footnote B.)	Learning Outcome (1)	Learning Outcome (2)	Learning Outcome (3)	Learning Outcome (4)	Weighting (%) of Assessment Element	Timetabled Contact Hours
Project report		✓			40	12

Component 3						
Assessment Type (Footnote B.)	Learning Outcome (1)	Learning Outcome (2)	Learning Outcome (3)	Learning Outcome (4)	Weighting (%) of Assessment Element	Timetabled Contact Hours
Presentation	✓	✓		✓	10	2
Combined Total for All Components					100%	14 hours