

University of the West of Scotland

Module Descriptor

Session: 2024/25

Title of Module: GA WBL 4 – Applied Research Project			
Code: ENGG10042	SCQF Level: 10 (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:	Stuart Tennant		
Summary of Module			
<p>This module is designed to provide graduate apprentices/students (hereafter referred to as students) with an opportunity to gain experience of undertaking applied research project work at a strategic level within or for an organisation. The work must be of marked importance to the organisation and address a specific business challenge/problem. The project must be selected and arranged by, and agreed with, the company, university and student and supported by a tripartite agreement. The tripartite agreement will define specific learning and practice outcomes for the student and confirm required elements of support and commitment from all parties.</p> <p>Supervision will be provided by a member of academic staff (normally the module coordinator or an appointed supervisor) and, although the work may be carried out for the student's employer or for an external client and involve site visits, the approval and supervision of the project is normally internal to the University. The students will have access to the University's Civil Engineering laboratory facilities for conducting experiments and testing where appropriate to support their applied research project.</p> <p>Where required, the student's preparation for the project covers health and safety, legal and ethical issues, employability, goal setting, reflection and PDP. While undertaking the project the student will use various academic, technical, practical and transferable skills already learned through their academic programme of study.</p> <p>This module will support students to develop their UWS graduate attributes, namely: Academic (critical and analytical thinking, inquiring, knowledgeable, innovation, and problem solving); Personal (effective communicator, creative, imaginative); Professional (Collaborative, research-minded, and socially responsible).</p>			

Module Delivery Method					
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"/>

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 checked="" type="checkbox"/>	Term 2	<input checked="" type="checkbox"/>	Term 3	<input type="checkbox"/>
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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	Critically identify, define, conceptualise and analyse complex professional problems and issues and negotiate appropriate learning objectives in conjunction with the University and, if appropriate, an external client.
L2	Execute a defined project of research, development or investigation and achieve agreed outputs and outcomes.
L3	Apply knowledge, skills and understanding of self-reflection, criticality, observation, evaluation, cooperation, autonomy and initiative to demonstrate and reflect upon own ability to develop learning, analysis, problem solving, interpersonal, social and other personal and professional skills in a workplace environment.
L4	Derive conclusions from the research conducted and formulate recommendations to industry and/or future researchers.

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 Level 10 Demonstrate a broad and integrated knowledge and understanding of the scope, main areas and boundaries of working at a strategic level in a civil engineering (& related activities) workplace environment.

<p>Practice: Applied Knowledge and Understanding</p>	<p>SCQF Level 10</p> <p>Apply knowledge, skills and understanding in using a wide range of the principal professional skills, techniques, practices and/or materials associated with the work-based learning objectives defined for the project.</p> <p>Execute a defined project of research, development or investigation and identify and achieve relevant outputs and outcomes.</p> <p>Carry out forms of research for projects involving sustained independent enquiry; retrieve and generate information and evaluate sources, in carrying out research, including the ability to quote from and acknowledge written sources.</p> <p>Practice in a range of professional level contexts that include a degree of unpredictability and/or specialism.</p>
<p>Generic Cognitive skills</p>	<p>SCQF Level 10</p> <p>Critically identify, define, conceptualise and analyse complex professional problems and issues.</p> <p>Offer professional insights, interpretations and solutions to problems and issues.</p> <p>Make judgements where data/information is limited or comes from a range of sources.</p>
<p>Communication, ICT and Numeracy Skills</p>	<p>SCQF Level 10</p> <p>Present or convey, formally and informally, information about specialised topics to informed audiences.</p> <p>Communicate with peers, senior colleagues and specialists on a professional level.</p> <p>Interpret, use and evaluate a wide range of numerical and graphical data to set and achieve goals/targets.</p>
<p>Autonomy, Accountability and Working with others</p>	<p>SCQF Level 10</p> <p>Exercise autonomy and initiative in professional activities.</p> <p>Work with others to bring about change, development and/or new thinking.</p> <p>Practice in ways that show awareness of own and others' roles and responsibilities.</p> <p>Manage complex ethical and professional issues in accordance with current professional and/or ethical codes or practices,</p>

	recognising the limits of these codes and seeking guidance where appropriate.	
Pre-requisites:	Before undertaking this module the student should have undertaken the following:	
	Module Code:	Module Title:
	Other:	
Co-requisites	Module Code:	Module Title:

*Indicates that module descriptor is not published.

Learning and Teaching	
The learning and teaching delivery for this module includes lectures, tutorials, work based learning and independent study. Independent study includes all learning and processing undertaken by a student outside the scheduled lectures and tutorials.	
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	10
Tutorial/Synchronous Support Activity	10
Work Based Learning/Placement	200
Independent Study	180
	400 Hours Total
**Indicative Resources: (eg. Core text, journals, internet access)	

The following materials form essential underpinning for the module content and ultimately for the learning outcomes:

Trought, F., Brilliant Employability Skills, Pearson Business, 2017.

Kirton, B., Brilliant Workplace Skills for Students & Graduates, Pearson Business, 2011.

Scherer, A., Brilliant Intern, Pearson Business, 2011

Done, J., and Mulvey, R., Brilliant Graduate Career Handbook, Pearson Business, 2016.

Cottrell, S., Skills for Success: Personal Development and Employability, Palgrave Macmillan, 3rd edition, 2015.

Richard F. Fellows, Anita M. M. Liu, Research Methods for Construction, 4th Edition, 2015.

(*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:

Please refer to the UWS Academic Engagement Procedure.

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	Wenzhong Zhu
External Examiner	Alison Robinson
Accreditation Details	This module is accredited by Joint Board of Moderators as part of GA-BEng (Hons) Civil Engineering.
Changes/Version Number	Changes – update internal moderator / update external moderator. Version: Previous: 1.05 Current: 1.06

Assessment: (also refer to Assessment Outcomes Grids below)
Assessment 1 – Final Applied Research Report / Dissertation contributing 70% to the final mark
Assessment 2 – Final Applied Research Presentation contributing 30% to 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.)

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
Dissertation/ Project report/ Thesis	✓	✓	✓	✓	70%	

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
Presentation	✓	✓	✓	✓	30%	2
Combined Total for All Components					100%	2 hours