Module Descriptor

Title	WBL1: Introduction to Engineering		
Session	2025/26	**Status**	Published
Code	ENGG07017	**SCQF Level**	7
Credit Points	40	**ECTS (European Credit Transfer Scheme)**	20 (European Credit Transfer Scheme)
School	**Computing, Engineering and Physical Sciences**		
Module Co-ordinator	A Wrzesien		

Summary of Module

This module is intended to provide apprentices (hereafter, students) with an introduction to engineering as a profession.

Part 1(Term 1): Foremost, students will be able to review and analyse current practices in their organisation's project(s) or the selected portfolio. Then, they will be able to demonstrate how those could lead to positive impacts of economic, societal and environmental aspects on the organisation's future directions, relevant business sector, the nation and beyond, to meet with UN Sustainable Development Goals (SDGs) (regarding L1). This module also allows students to develop individual skills and mindsets to contribute to the organisation by reflecting on their own motivations, preferences, values, working styles and so on, through the self-awareness assessment (regarding L3).

Part 2 (Term 2): In the engineering industry, it is well known that making better-informed decisions is a key to success in any of the stages of the project. To address this, students will be able to improve the ability of formal and structured decision-making skills, by applying a multi-criteria decision analysis (MCDA) method for their workplace activities (regarding L2). Meanwhile, to make sounder decisions by maintaining high ethical standards as an engineering profession, they will be able to demonstrate an understanding of ethical behaviour (regarding L3).

This module will support students in developing their UWS graduate attributes, namely: Academic (critical and analytical thinking, inquiring, knowledgeable, innovative, and problem-solving); Personal (effective communicator, creative, imaginative); Professional (Collaborative, research-minded, and socially responsible).

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	Recognise the organisation's current practice and develop creative and critical thinking abilities for its future directions towards sustainable development.
L2	Demonstrate an understanding of multi-criteria decision analysis and develop skills to make informed and structured decisions when selecting engineering solutions.
L3	Improve individual skill and mindset as an engineering professional, based on the self-awareness assessment and ethical standards.
L4	N/A
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 7** Develop a broad knowledge of the workplace environment. Develop learning awareness and consider key aspects present in learning experiences as the basis for critical evaluation of the current approach to learning. Develop an active learning style to conduct deep-level learning in the learning environment. Develop an understanding of personal and interpersonal skills development. Understanding of e-portfolio design.
Practice: Applied Knowledge and Understanding	**SCQF 7**

[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

	Carry out routine lines of enquiry, development or investigation related to the workplace. Creating and implementing an online e-portfolio.
Generic Cognitive skills	**SCQF 7** Developing learner awareness of active deep learning approaches necessary for deep-level skill development. Develop interpersonal skills. Develop personal active learning strategies.
Communication, ICT and Numeracy Skills	**SCQF 7** Communicating knowledge effectively. Interpreting issues and stating solutions. Making effective use of tools and information.
Autonomy, Accountability and Working with Others	**SCQF 7** Manage time and resources effectively. Individual work and research to gain concepts, identifying own learning needs. Work as part of a group as required.

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. Through this module, the student will develop a set of learning activities in conjunction with their workplace mentor and academic tutor to meet the module's learning outcomes. To ensure that the apprenticeship is effectively managed, UWS has set various engagement points (EP) to involve the workplace mentor for work-based learning (WBL) modules. In addition to common EP1 (workplace visit) for the WBL modules, the mentor will be invited to the final presentation (EP2) and provide formative feedback on the student submission (EP3) for this module at the end of Term 2. Lecture and support material is contained in course notes available on the UWS virtual learning environment (VLE) platform.	
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	12
Tutorial / Synchronous Support Activity	10
Practice-based Learning	378
n/a	0
n/a	0
n/a	0
TOTAL	400 Hours

Indicative Resources
The following materials form essential underpinning for the module content and ultimately for the learning outcomes: Hepworth A. (2011), Studying for Your Future - Successful Study Skills, Time Management, Employability Skills and Career Development - A Guide to Personal Development ... Skills. (Skills Training Course), Universe of Learning Ltd. Satty, T. L. and Vargas, L. G. (2012), Models, Methods, Concepts & Applications of the Analytical Hierarchy Process, Springer, 2nd Ed. Trought, F. (2017), Brilliant Employability Skills: How to Stand Out From The Crowd in The Graduate Job Market, Pearson UK. Kirton, B. (2011), Brilliant Workplace Skills for Students & Graduates, Pearson UK.
(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. You will need to scan your Student ID card via the scanners each time you are on-campus and you will need to login to the VLE several times per week. Where you are unable to attend a timetabled learning session due to an illness or other circumstance, you should notify the Module Co-ordinator above that you cannot attend. Across the School, an 80% attendance threshold is set. If you fall below this, you will be referred to the Student Success Team to see how we can best support your 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. 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. Students will have 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 learning 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.
(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	Civil Engineering and Quality Management
Moderator	J Hughes
External Examiner	M Bock
Accreditation Details	This module is accredited by the Joint Board of Moderators (JBM) as part of the GA-BEng (Hons) Civil Engineering.
Module Appears in CPD catalogue	☐ **Yes** ☒ **No**
Changes / Version Number	1.09 (was 1.07)

Assessment (also refer to Assessment Outcomes Grids below)
Assessment 1
Industry Review Essay (50%)
Assessment 2
Project Review Report (30%)
Assessment 3
Presentation (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.)

Component 1							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
Industry Review Essay	☒	☐	☒	☐	☐	50	0

Component 2							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
Project Review Report	☐	☒	☐	☐	☐	30	0

Component 3

Assessment Type	LO1	LO2	LO3	LO4	LO5	Weighting of Assessment Element (%)	Timetabled Contact Hours
Presentation	☐	☐	☒	☐	☐	20	3
Combined total for all components						100%	3 hours

Change Control

What	When	Who
V. 1.09 Updated Attendance and Engagement Requirements, Updated Equality and Diversity, Updated Assessment 3.	March 2025	A Wrzesien