Module Descriptor

Title	Independent Study		
Session	2025/26	**Status**	Published
Code	ENGG09018	**SCQF Level**	9
Credit Points	20	**ECTS (European Credit Transfer Scheme)**	10
School	**Computing, Engineering and Physical Sciences**		
Module Co-ordinator	B Aresh		

Summary of Module

The subject of the engineering report will be agreed to ensure good alignment with the student's programme of study. The student will provide a topic selection proposal outlining the content of the report. Within the report, the student will be required to demonstrate that a critical review of the topic has been undertaken. Original research need not be undertaken. It is anticipated that students' final report will be based on literature review, observation, examination and analysis and development of the topic in some considerable depth. It may comprise an alternative design, alternative construction method, analysis of the health and safety implications of a project or design, or the development of a quality assurance system, etc. The report must not be purely descriptive; depth of understanding and technical content will be required. The report may include calculations, student developed designs, comparisons between different solutions etc.

During the course of this module students will develop their UWS Graduate Attributes.

Academic Universal and Work- ready attributes: Students will gain knowledge and understanding of academic writing as well as having the opportunity to develop a broad range of ICT, technical and transferable skills. This module has been reviewed and updated, taking cognisance of the University's Curriculum Framework principles. For example, active and engaging, module assessment which reflects use of academic referencing and corresponding referencing resources. Library drop-in sessions for exploring use of subject specific academic journals for undertaking a critical review will be facilitated.

To provide students with an opportunity to prepare a significant written work. To allow students to develop skills to undertake a literature review.

To allow students to develop skills at referencing technical literature for inclusion in academic and engineering reports.

To allow students to demonstrate some engineering judgement and critical thinking.

This module will support students to develop following UWS graduate attributes: Academic - critical and analytical thinking, inquiring, knowledgeable, innovative, and problem solving; Personal - ethically minded, creative, imaginative; Professional -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	To select and then study a topic relevant to the Engineering Discipline of the student to demonstrate good academic literature review techniques.
L2	To critically review the information collected.
L3	To produce a report that demonstrates skill in technical report writing and engineering judgement.
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 9** Demonstrate further knowledge and understanding of essential facts, concepts, theories and principles of engineering. Further develop the appreciation of the wider multidisciplinary engineering context and its underlying principles.
Practice: Applied Knowledge and Understanding	**SCQF 9** Possess knowledge, understanding and practical engineering skills acquired through individual project work. Use creativity and innovation.

[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

	Further application of the use of technical literature and other information sources. The independent study module project will demonstrate the application of knowledge of engineering management principles, commercial context, project and change management, and relevant legal matters including intellectual property rights.
Generic Cognitive skills	**SCQF 9** Be able to comprehend the broad picture and thus work with an appropriate level of detail. Investigate a civil engineering problem.
Communication, ICT and Numeracy Skills	**SCQF 9** Possess practical engineering skills acquired through individual project.
Autonomy, Accountability and Working with Others	**SCQF 9** Further develop skills in planning self-learning and improving performance.

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. This module is mainly directed by the student. The module coordinator will put in place materials that the student can use and will be available to provide advice and support as required.	
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
Independent Study	194
n/a	0
n/a	0
n/a	0
n/a	0
TOTAL	200

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

The materials that the student consults is dependent on the topic that is being studied. Students are expected to use the resources of the UWS Library and the Internet.

Materials covering the "mechanics" of the module (report requirements, submission details, etc.) will be provided via the University's VLE.

Extension Resources: Consultation of the under noted resources is recommended and material from these resources may be of benefit to the student in the assessment process: The UWS library website and in particular the "UWS Referencing Guidelines." The Electronic Resources provided by the UWS library.

(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. This module has laboratory-based teaching and as such you are advised to speak to the Module Co-ordinator to ensure that specialist assistive equipment, support provision and adjustment to assessment practice can be put in place, 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	N Kamaruddin
External Examiner	M Ghaleeh
Accreditation Details	This module is part of the IMechE accredited programmes BEng/MEng (Hons) Aircraft and Mechanical Engineering.
Module Appears in CPD catalogue	☐ **Yes** ☒ **No**
Changes / Version Number	3.14 (was 3.13) Module Descriptor copied to 2025/26 template, Learning and Teaching, Attendance and Engagement and EDI statements updated. Module moderator changed from P Vichare to N Kamaruddin

Assessment (also refer to Assessment Outcomes Grids below)
Assessment 1
Dissertation/ Project report/ Thesis
Assessment 2
Assessment 3
(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	☒	☒	☒	☐	☐	100	0

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

Component 3

Assessment Type	LO1	LO2	LO3	LO4	LO5	Weighting of Assessment Element (%)	Timetabled Contact Hours
	☐	☐	☐	☐	☐		
Combined total for all components						100%	0 hours

Change Control

What	When	Who
Module Descriptor copied to 2025/26 template, Learning and Teaching, Attendance and Engagement and EDI statements updated. Module moderator changed from P Vichare to N Kamaruddin	March 2025	B Aresh