Module Descriptor

Title	Post Graduate Research Methods		
Session	2026/27	**Status**	Published
Code	QUAL11026	**SCQF Level**	SCQF Level: 11 (Scottish Credit and Qualifications Framework)
Credit Points	20	**ECTS (European Credit Transfer Scheme)**	10 (European Credit Transfer Scheme)
School	**Computing, Engineering and Physical Sciences**		
Module Co-ordinator	C Alutu (Paisley) R Iftikhar London		

Summary of Module

This module discusses how to develop research, the various approaches that are used in carrying out research and finally discusses how to present research results both in verbal and written forms.

Students will be shown different approaches to research including both qualitative and quantitative methods. Students will also learn about the types of tools and techniques that may be employed within these methods, including the use of literature review, focus groups, surveys, questionnaires, interviews, experiments, and case studies.

The use of different data analysis methods to describe and interpret both qualitative and quantitative data is explored.

Other issues covered in the module include planning, use of library resources, doing a literature review, critiquing published research, and legal and ethical constraints,

The assessment for the module requires the student to demonstrate their ability to propose, and plan the execution of, a piece of research suitable for academic work at MSc level.

This module will develop a range of graduate attributes, including numeracy skills, problem formulation, problem-solving skills, and the ability to present a clear argument.

Graduate attribute covered by this module include:

Universal: Critical Thinker, Ethically minded and Research-minded.

Work Ready: Problem-Solver, Effective Communicator and Ambitious.

Successful: Autonomous, Resilient and Driven.

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) LUBM	

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	Critically explore and identify research areas in their subject discipline that are fertile, and formulate specific problems in these areas that are research-worthy
L2	Critically understand, and know how to apply, various types of research method in their subject discipline
L3	Understand the importance of ethics in research and how it is applied.
L4	Construct, communicate, and defend a research strategy that is appropriate to the level of an MSc research project
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 11** Critically evaluate the characteristics of reliable research strategies, address ethical considerations in research, and demonstrate the effective use of data to support arguments.
Practice: Applied Knowledge and Understanding	**SCQF 11** Use of online/offline data collection facilities and application of auditing skills for solving research problems; practical exercise in self-criticism
Generic Cognitive skills	**SCQF 11** Critical selection of strategies and tools

[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

Communication, ICT and Numeracy Skills	**SCQF 11** Use of appropriate computer software for written and oral presentations. Critical discussion of ICT tools in support of research objectives (e.g., data collection and analysis).
Autonomy, Accountability and Working with Others	**SCQF 11** Responsibility for selection of research topic, ownership of research process including integrity of source usage (e.g., literature, ethical practice)

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. The module is aligned with the updated curriculum framework of UWS. Student-centered: the material and case studies are based on different sectors to reflect the experience of the students from different degrees and contextualize their learning. Tutorial time and discussion forums (Classrooms, VLE, MS Teams) allow for multiway communication between students and lecturers. Flexible and Hybrid: Teaching material is available on the online learning platform including slides, recording, practical exercises, and additional learning to complement each week's topic. Online lectures are available, and the recorded ones allow for students to watch or Re-watch what they may have missed. The module is designed for full time, part time and Distance learning students. Simple and Coherent: The learning content, which is communicated from the start is set in a linear way to ensure learning is progressing smoothly with designed check in milestones to assess progress (e.g., online quizzes and review sessions) Authentic: Discussions and Assessment are based on students' experience centered around the learning material Inclusive: All material is available in written, audio format with subtitles and transcripts where feasible Sustainable: Material is updated annually and reflects what is happening in the sector and taking into consideration the student's feedback from formal and informal channels The module comprises lectures and independent study. Guest lectures are used, wherever possible, to help extend students' contact with active researchers in the school and to provide specialist knowledge (e.g., statistical analysis, Ethics considerations/application). Further useful materials on research approaches, methodology, and practical guidelines for undertaking research are provided on VLE in addition to class examples and exercises.

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	24
Tutorial / Synchronous Support Activity	12
Independent Study	164
n/a	0
n/a	0
Please select	0
TOTAL	200

Indicative Resources

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

There are many excellent texts available about Research Methods. The list below indicates some useful texts we found.

Bell, E., Bryman, A. and Harley, B. (2022) Business research methods. 6th ed. Oxford: Oxford University Press.

Creswell, J.W. and Creswell, J.D. (2018) Research design: Qualitative, quantitative, and mixed methods approaches. 5th edn. Thousand Oaks, California: SAGE Publications.

Dawson, C. (2019) Introduction to research methods: A practical guide for anyone undertaking undergraduate, postgraduate or professional research. 5th edn. Oxford: Routledge.

Greenfield, T. and Greener, S. (2016) Research methods for postgraduates. 3rd edn. Chichester: John Wiley & Sons.

Hammersley, M. and Traianou, A. (2012) Ethics in qualitative research: Controversies and contexts. Abingdon: Routledge.

Saunders, M., Lewis, P. and Thornhill, A. (2019) Research methods for business students. 8th ed. Harlow: Pearson Education Limited.

Taylor, S.J., Bogdan, R. and DeVault, M. (2015) Introduction to qualitative research methods: A guidebook and resource. 4th ed. Hoboken, New Jersey: John Wiley & Sons.

Whitbeck, C. (2011) Ethics in engineering practice and research. 2nd ed. Cambridge: Cambridge University Press.

(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:

Campus and on online attendance, as per teaching delivery Engagement online platform and classrooms.

Prompt Attendance of Lectures- Students are expected to attend scheduled lectures promptly and actively participate by taking notes, asking questions, and contributing to discussions.

Prompt Attendance of Tutorials- Students are expected to attend tutorials on time, prepared with any assigned readings or tasks. Active participation in tutorial discussions and activities is strongly encouraged.

Weekly Access to Materials on VLE- Students are required to access VLE on a weekly basis to stay informed about updates, download lecture slides or readings, and engage with any online activities or discussions

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 scan your attendance via the scanners each time you are on-campus and you will login to the VLE several times per week. Where you are unable to attend a timetabled learning session due to illness or other circumstance, you should notify the Programme Leader 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. 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. Specialist assistive equipment, support provision and adjustment to assessment practice in accordance with the University's policies and regulations. More information on the University's EDI policies can be accessed at: https://www.uws.ac.uk/about-uws/uws-commitments/equality-diversity-inclusion/
(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	Engineering and Quality Management
Moderator	A Dey
External Examiner	A. Garad
Accreditation Details	This module is part of a degree program accredited by APM: Association for Project Management
Module Appears in CPD catalogue	☐ **Yes** ☒ **No**
Changes / Version Number	1.12

Assessment (also refer to Assessment Outcomes Grids below)
Assessment 1
Continuous assessment worth 20% of the final mark.
Assessment 2
Final written research proposal. Approximately 2000 words worth 80% of the final mark
Assessment 3
N/A
(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**
Test/Quiz	☐	☒	☒	☐	☐	20	

Component 2							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
Review/ Article/ Critique/Paper	☒	☒	☒	☒	☐	80	

Component 3							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
N/A	☐	☐	☐	☐	☐		
Combined total for all components						100%	0 hours

Change Control

What	When	Who
Module Descriptor reviewed prior Academic Year 2025/2026 in line with ILR recommendations	March 2025	Chimaobi Alutu