

# Module Descriptor Form

## Civil and Environmental Engineering

### CL997 - Research Methods For Quantitative And Qualitative Approaches

Module Code	CL997	Module Title	Research Methods For Quantitative And Qualitative Approaches							
Module Registrar										
Other Staff Involved	Dr Christopher Gallacher (Lecturer)									
Credit Weighting	10	Semester	2	Elective	No	Academic Level				
Pre-requisites										
Required for										

#### Module Format and Delivery (hours):

Lectures	Tutorials	Assignments	Labs	Private Study	Total
20	0	40	0	40	100

#### Educational Aim

*This module aims to:*

In this class, dedicated to the MSc and MRes students in the Department of Civil & Environmental Engineering, students will acquire familiarity with, and practice of, research techniques, and examine different ways of, and gain experience in, presenting research results. The course discusses the key principles, and practical exercises, on both quantitative and qualitative research methods, such as observation methods, survey methods, interviewing techniques and statistical methods. The course also includes discussion of ethical issues. Finally, the course covers writing skills and use of literature, which is relevant to all classes.

#### Syllabus

*This module will teach the following:*

The module will teach the following:

1. Introduction to research methods
2. Why do students fail?
3. Producing quality work
4. Managing your MSc
5. Ethical research
6. Assignment 1 reflection workshop
7. Introduction to Statistics and qualitative statistics
8. Designing a poster workshop
9. Quantitative statistics and data communication
10. Distribution of data and data quality

**Learning Outcomes***On Completion of the module, the student is expected to be able to:*

LO: 1	LO1: Ability to develop a research question, and critically analyse primary literature to support your argument.
LO: 2	LO2: Critical understanding of different research approaches , and the ability to appropriately analyse data.
LO: 3	LO3: Understanding of ethical issues related to research topic.
LO: 4	LO4: Critically analyse research findings and understand what constitutes good writing practice/presentation

*(UK SPEC suggests no more than 4 learning outcomes per module. Statements must be broad and be syllabus free and link in with the intended learning outcomes on the programme specifications.)*

**Assessment of Learning Outcomes - Criteria**

Learning Outcome: 1

	<b>Criteria</b>
1	how to perform primary literature searches
2	how to reference; avoid academic dishonesty
3	how to structure evidence

Learning Outcome: 2

	<b>Criteria</b>
1	surveys, questionnaires
2	graphical representations of data
3	statistical analysis

Learning Outcome: 3

	<b>Criteria</b>
1	creation of consent form and participant information sheet
2	ethics approval process

Learning Outcome: 4

	<b>Criteria</b>
1	literature review
2	poster evaluations
3	draft manuscript evaluations

**Assessment Method(s) Including Percentage Breakdown and Duration of Exams**

To Pass the module, students need to gain a summative mark of: 50%

Description	Semester	Start Week	Duration	Weight	Submission Week	Linked Criteria
Assignment 1	2	1		20%	4	
Assignment 2	2	1		50%	8	
Assignment 3	2	1		30%	E	

**Principles of Assessment Feedback**(within Assessment and Feedback Policy at: <https://www.strath.ac.uk/staff/policies/academic/> )

- Assignments are routine and evenly distributed throughout the class.
- Students will have ample opportunities (via multiple projects) to incorporate feedback and improve their performance. Including individual meetings with class tutor to provide feedback on drafts of reports produced by group work.
- Departmental policy: carry out mid-term class assessments and provide feedback to students.

**Additional Information****Resit Procedure**

Resubmission of coursework prior to commencement of the August exam diet.

**Recommended Reading**

N/A

**Module Timetable**

Week	Semester 1	Semester 2
0		
1		
2		
3		
4		Submission 20%
5		
6		
7		
8		Submission 50%
9		
10		
11		
E		Submission 30%

**Date of Last Modification**

06-11-2025