MODULE DESCRIPTOR

Module Title

Research Methods

Reference	PL4998	Version	1
Created	August 2022	SCQF Level	SCQF 10
Approved	June 2023	SCQF Points	15
Amended	August 2021	ECTS Points	7.5

Aims of Module

To provide the student with the ability to carry out and evaluate hypothesis driven laboratory work and analyse experimental data.

Learning Outcomes for Module

On completion of this module, students are expected to be able to:

1	Maintain a laboratory diary in which methods, results and conclusions are recorded.
2	Competently perform experimental procedures in a team and appraise each others' input.
3	Solve a scientific problem experimentally.
4	Evaluate experimental data, identifying sources of errors and uncertainty, including appropriate use of statistics.
5	Present and communicate, in the form of a scientific report and orally defend the results and conclusions of the investigative study.

Indicative Module Content

The module will consist of extended laboratory investigations supported by lectures and tutorials. Students will be able to develop time and management skills and have the opportunity to gain an in-depth working understanding of data analysis. Peer assessment.

Module Delivery

The course is laboratory based but will also involve some classroom based lectures and tutorials.

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Indicative Student Workload	Full Time	Part Time
Contact Hours	50	N/A
Non-Contact Hours	100	N/A
Placement/Work-Based Learning Experience [Notional] Hours	N/A	N/A
TOTAL	150	N/A
Actual Placement hours for professional, statutory or regulatory body		

ASSESSMENT PLAN

If a major/minor model is used and box is ticked, % weightings below are indicative only.

Component 1

Type:	Coursework	Weighting:	100%	Outcomes Assessed:	1, 2, 3, 4, 5
Description:	Oral defence of a written report based on peer-reviewed laboratory group work.				

MODULE PERFORMANCE DESCRIPTOR

Explanatory Text

A minimum module grade of D is required for a pass.

Module Grade	Minimum Requirements to achieve Module Grade:
A	A
B	B
C	C
D	D
E	E
F	E
NS	Non-submission of work by published deadline or non-attendance for examination

Module Requirements

Prerequisites for Module	None, in addition to SCQF level 10 requirements, or equivalent.
Corequisites for module	None.
Precluded Modules	None.

ADDITIONAL NOTES

Students will be required to conform to appropriate safety regulations throughout.

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INDICATIVE BIBLIOGRAPHY

1	RRED, R.H., HOLMES, D., WEYERS, J. and JONES, A. 2016. Practical Skills in Biomolecular Science. 5th Edition. Pearson.
2	O'CONNOR, M. 1991. Writing Successfully on Science. 1st Edition. Spon.
3	YOUNG, M. 1989. The Technical Writer's Handbook: Writing with Style and Clarity. 1st Edition. University Science Books.
4	MATTHEWS, J.R. and MATTTHEWS, R.W. 2007. Successful Scientific Writing: A Step-by-Step Guide for the Biological and Medical Sciences.< 1st Edition. Cambridge University Press.