

MODULE DESCRIPTOR

Module Title

Professional Development and Research Skills

Reference	CMM507	Version	9
Created	January 2024	SCQF Level	SCQF 11
Approved	November 2003	SCQF Points	15
Amended	April 2024	ECTS Points	7.5

Aims of Module

To develop research skills relevant to rapidly evolving scientific disciplines and technologies. To foster an awareness of ethical and legal implications of IT. To develop interpersonal communication skills, written oral and collaborative.

Learning Outcomes for Module

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

- 1 Critically appraise published research.
- 2 Design experiments and other studies using statistical designs linked to specific methods of analysis.
- 3 Critically evaluate real situations with respect to legal, ethical, social, professional and sustainability issues.
- 4 Take responsibility for working effectively as a member of a development team.

Indicative Module Content

Literature search skills; referencing and citations. Academic writing and reading skills. Oral presentations. Critical thinking, peer reviews and balanced reporting. Self-reflection. The scientific method and hypothesis testing. Experimental design, reproducible research, evaluation of research outcomes. Social and ethical implications of IT, copyright, patents, intellectual property rights, contracts, product liability, data protection. Effective groups. Project planning and management skills. Development lifecycle, tools and techniques.

Module Delivery

The course content is delivered by a combination of lectures and interactive lab sessions, and is based on extensive use of case studies.

Indicative Student Workload	Full Time	Part Time
Contact Hours	30	30
Non-Contact Hours	120	120
Placement/Work-Based Learning Experience [Notional] Hours	N/A	N/A
TOTAL	150	150
<i>Actual Placement hours for professional, statutory or regulatory body</i>		

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

Description: This is a group coursework. For a chosen topic, students will undertake a critical appraisal of selected published research; consider legal, ethical, social and professional issues; develop a research proposal; devise a project plan, design an experiment and use statistical techniques to undertake analysis and evaluation.

MODULE PERFORMANCE DESCRIPTOR

Explanatory Text

The coursework pass grade is D.

Module Grade	Minimum Requirements to achieve Module Grade:
A	To achieve an A, the student must achieve an A in Component 1.
B	To achieve a B, the student must achieve a B in Component 1.
C	To achieve a C, the student must achieve a C in Component 1.
D	To achieve a D, the student must achieve a D in Component 1.
E	To achieve an E, the student must achieve an E in Component 1.
F	To achieve an F, the student must achieve an F in Component 1.
NS	Non-submission of work by published deadline or non-attendance for examination

Module Requirements

Prerequisites for Module	None.
Corequisites for module	None.
Precluded Modules	None.

INDICATIVE BIBLIOGRAPHY

- 1 BAINBRIDGE, D., 2008. Introduction to Information Technology Law, Pearson.
- 2 BELL, J., 2014. Doing Your research Project. Open University Press.
- 3 BOWDEN, J., 2011. Writing a report: How to prepare, write and present really effective reports. How To Books Ltd.
- 4 BLAIR, L., 2016. Writing a Graduate Thesis or Dissertation. Sense Publishers.
- 5 CRESWELL, J.W. , 2014. Research design: qualitative, quantitative, and mixed methods approaches. Sage.
- 6 MADSEN, B., 2016, Statistics for non-statisticians. Springer.