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MODULE DESCRIPTOR

Module Title

Professional Development and Research Skills

| Reference | CMM507 | Version | 6 |
|-----------|---------------|-------------|---------|
| Created | April 2017 | SCQF Level | SCQF 11 |
| Approved | November 2003 | SCQF Points | 15 |
| Amended | August 2017 | ECTS Points | 7.5 |

Aims of Module

To develop practical planning and communication skills and gain familiarity with research methods relevant to a rapidly evolving technological discipline. To foster an awareness of ethical and legal implications of IT. To develop collaborative skills.

Learning Outcomes for Module

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

- Undertake a literature search, identifying various information resources (on-line and off-line) and access these in order to obtain relevant and up-to-date information on a topic of specialist interest.
- With other members of a team, assess and evaluate the legal aspects of workplace practices with respect to intellectual property rights, copyright issues, contracts pertaining to software development/IT projects, product liability and data protection.
- Plan and manage a major software development or research project, using appropriate software tools to create, evaluate and monitor the progress of the project.
- Evaluate research claims and/or analyse software performance using simple statistical techniques to lend scientific rigour to the process of evaluation.

Indicative Module Content

Library skills: literature searches; information sources (on-line and off-line). Legal Issues: Social and ethical implications of IT; copyright; patents; intellectual property rights; contracts; product liability; data protection. Project planning and management: skills; tools and techniques; configuration management. Report writing: citation styles; practical skills in formatting, building contents and indices; report writing style. Evaluation: experimental design; reproducible research; evaluation of research outcomes. Statistics: experimental design; data analysis; inference.

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.

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| Indicative Student Workload | Full Time | Part Time |
|---|-----------|-----------|
| Contact Hours | 44 | 44 |
| Non-Contact Hours | 106 | 106 |
| Placement/Work-Based Learning Experience [Notional] Hours | | N/A |
| TOTAL | 150 | 150 |
| 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

This is a coursework. For a given brief, students will consider professional, social and legal issues;

Description: students will devise a project plan, design an experiment and, given data, 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: |
|--------------|--|
| Α | To achieve an A, the student must achieve an A in Component 1. |
| В | To achieve a B, the student must achieve a B in Component 1. |
| С | 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 in addition to the standard entry requirements.

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.
- 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.