Module Code:	**CMI 3416**
Module Title:	**EFFECTIVE RESEARCH AND PROFESSIONAL PRACTICE**

School(s) Involved in Delivery:	School of Computing and Engineering
Name of Course(s):	MSc Information Systems Management MSc Advanced Computer Science MSc Network Technology and Management MSc Internet Security MSc Web Technologies
Module Leader:	Dr. David Wilson
Location for delivery:	Queensgate, Department of Informatics
Module Type:	Compulsory
Credit Rating:	15
Level:	M - Masters
Learning Methods:	Supervised Learning 36 hours. Private study 114 hours
Pre-requisites:	None
Recommended Prior Study:	None
Co-requisites:	None
Professional Body Requirements:	Required for BCS accreditation
Barred Combinations:	None
Graded or Non-Graded:	Graded

Module Synopsis

The module is designed to enable students to explore the issues that confront them in the development of their capability as IS/IT researchers and practitioners in either external or internal modes. It explores the legal, ethical and professional aspects of computing in practice. Relevant legislation is examined. Case studies, which pose legal and ethical dilemmas, are studied. It will also provide an environment in which issues pertinent to the development of students' capability in research and IT practice raised in other modules of the relevant courses can be synthesised and discussed.

The effective IS/IT professional occupies a pivotal role in the interface between technology and the human resource. This requires the development of professional and research skills, coupled with critical awareness that will enable them to work effectively with others at intra and inter departmental levels. Part of their overall contribution to organisational effectiveness rests in their ability to undertake research (in order to develop optimal IS/business solutions) and to enact the role of researcher/consultant in developing the sorts of relationship that will enable effective implementation of those solutions. The effective IS/IT professional requires a good understanding of the dynamics of organisational life, an understanding of the processes of organisation development, good capability in the research activity, and an understanding of the processes of effective operation as practitioners in the management and/or delivery of information technology.

Outline Syllabus

Professional Issues: the debates around, and related to, these topics: the concepts of professionalism and ethics; Codes of practice; Computer misuse and computer crime; Intellectual property and copyright; Data protection; Health and safety at work; Software liability and contracts; Health and safety; Internet issues; email policies; Ethics and approval; e-commerce issues and legislation

Research Methods: The development of creative thinking about organisational problem-solving; Different approaches to research methodology – e.g. epistemological and ontological choices; The theory and practice of research methods; Understanding the act of research The relationship between research and practice.

Learning Outcomes

1. Knowledge and Understanding Outcomes

Upon completion of this module the learner will possess, the knowledge to:

1.1 Identify and delineate the professional, legal and ethical issues raised by computing practice in organisations and
1.2 Identify and delineate the professional, legal and ethical issues attributed to one's own personal responsibility
1.3 Critically analyse the strengths and weaknesses of alternative research methods.
1.4 Plan, document, manage, evaluate, and deliver a rationale for an IS/IT project using appropriate methods of research, analysis and investigation

2. Ability Outcomes

Upon completion of this module the learner will demonstrate the ability to:

2.1. Apply the principles of professional behaviour to determine appropriate responses to specific problems provoked by the use of computers within given organisational scenarios.
2.2. Develop a research strategy – by applying the principles of appropriate research methods and, where appropriate, proposing new hypotheses, to determine an appropriate process of enquiry for selected IS/IT problems.

Assessment Strategy

Formative Assessment

Students will be provided with peer feedback on their progress in achieving the desired learning outcomes during the module through action learning sets. Project supervisors will provide feedback on the presentation of a Terms of Reference for a research project, which on approval can be used for the project the student intends to undertake as part of their course.

Summative Assessment

Assessment Tasks (including assessment weightings)

Assignment One: A Portfolio (50% of the overall assessment for the module)

Students will build up a portfolio of items of approximately 3000 words that are related directly to the requirements of the Individual Project. The portfolio of items will be an opportunity to reflect on and theorise about real-time incidents that take place during the module (and any personal experiences prior to the module). Students will be asked to synthesise and critically evaluate the learning gained from the portfolio of items. The Portfolio will consist of a 'reflective' account, with an academic research case study used to frame these reflections. The portfolio will include an analysis of 'events' – e.g. lectures, workshops, learning materials used, formal/informal discussions etc. and display an appreciation of personal, professional, legal and ethical practice in areas such as IS strategy formulation, change and project management, systems development and implementation, and/or different strategic management roles and surrounding IS/organisational issues..For IS students this may involve the ethics of dealing with trade-offs for different groups of stakeholders for competing system requirements; for more technical students this may involve the ethics of cutting-edge software development for commercial espionage purposes. A discussion of appropriate research methods will also be included in the portfolio. This assignment will assess learning outcomes – 1.1 to 1.3 and 2.1.

Assignment Two: A Report (Terms of Reference) (50% of the overall assessment for the module)
Assignment two is the final assessment for this module.

Students will prepare a Terms of Reference of approximately 3000 words. This will allow students to gain experience in formulating a research document, in anticipation of undertaking the Individual Project during the dissertation phase of the degree and also to achieve the Learning Outcome 1.4 and 2.2.

Assessment Criteria
Assignment One – A Portfolio: Emphasis will be placed on depth of knowledge; application of theory to experiences; quality of reflection; quality of personal analysis and appropriateness of recommendations.

For Pass level in the Portfolio it is essential that there should be a reflection on 'events' during the module and reference to relevant theory.

A Modal level performance will be indicated by the achievement of the aforementioned, PLUS deeper critical assessment of theory etc. and/or clear evidence of perceptive, original thinking fully related to, and grounded in, experiences.

Assignment Two – A Report: Emphasis will be placed on the focus for the objectives of the proposed research to ensure that the student appreciates the scale and scope of the proposed dissertation area.

Pass level for the Report will demonstrate understanding of, and the ability to choose well, some appropriate methodologies for a given problem/ research domain and a sound discussion of the wider context, communicated well.

Modal level will demonstrate thorough understanding and interpretation of the issues in selecting methodologies, consideration of alternatives, and a high level of synthesis, even original thinking, in the proposed research, communicated very well and appropriate to the audience.

Note:
Both assignments will be eligible for tutor reassessment.

Both assignments will be submitted for marking with an approved cover sheet containing the student's name, identity number and date of submission.

Learning Strategy
The keynote ideas and themes will be introduced by course tutor(s). Much of the work will be conducted in action learning sets that will enable members to both experience and discuss issues in research and professional practice. These action learning sets will be problem-centred (on substantive issues in both IS/IT) but will also be opportunities for students to develop their capability in both. Substantive issues will be presented through case studies and, wherever possible, through the personal experience of the students.

Appendix: Indicative References

Effective Research & Professional Practice CMI3416

Journals: IT Law Today, MIS Quarterly, Computing, Computer Weekly, Systemic Practice & Action Research

Books:

Avison D. and Fitzgerald G. (2006) *Information Systems Development* McGraw-Hill

Ayres R. & Bainbridge D. I. (2004) *Introduction to Computer Law & The Essence Of Professional Issues In Computing*. Prentice Hall.

Dixon M. (ed.) (2000) *Project Management: Body of Knowledge.* Association for Project Management.

Fitzgerald B., Russo N. L., and Stolterman E. (2001) *Information Systems Development: Methods in Action.* McGraw-Hill.

Langford D. (2000) *Internet Ethics*. MacMillan.

Robson, C (2002) *Real World Research* Blackwell

Oppenheim, AN (2000) *Questionnaire Design, Interviewing and Attitude Measurement*, Pinter

Coffey, A & Atkinson, P (1996) *Making Sense of Qualitative Data,* Sage