

MODULE CODE: DUM5007

TITLE: Project Management and Research Methods

DATED: 03/05/2018

LEVEL: 5

CREDITS: 20

JACS CODE: I100

AIM(S)

- To provide students with a critical awareness of the contemporary challenges facing IT managers and the key decisions they must take in order to satisfy the principal stakeholders to create quality systems within the promised timescale and budget. The student will be able to critically appreciate the importance of professional conduct and consider the ethical and legal issues facing IT personnel.
- To underpin academic research and the third year major project, and to provide students with a comprehensive and systematic understanding of the knowledge and skills needed to collect, interpret, analyse, synthesise and present data using appropriate research methods. The module will extend the student's technical expertise in information systems development such that s/he is able to evaluate the suitability of different development methods for different situations.

LEARNING OUTCOMES

Upon the successful completion of this module, the student should be able to:

- Evaluate project management methods and techniques, and demonstrate an appreciation of the legal and ethical issues, including sustainability.
- Demonstrate a critical awareness and systematic understanding of a range of contemporary project management techniques while working as a member of a team.
- Review critically the current research literature pertinent to a research topic and communicate the results of the research to specialist and non-specialist audiences.
- Demonstrate a sound understanding of research and development strategies and use these to produce a proposal suitable for a Major Project that meets ethical and sustainability guidelines.

INDICATIVE CONTENT

- Understanding the roles and responsibilities within project teams and the management of people and change.
- Ethical, legal and professional responsibilities incumbent on IS/IT managers, e.g. intellectual property, data protection, codes of practice (BCS), legal frameworks, contracts.
- Resourcing alternatives: for example, outsourcing, developing bespoke software or purchasing sophisticated software packages (such as enterprise systems)
- Project Planning: Function Point Analysis (FPA), Critical Path Analysis (PERT, CPM), Gantt Charts, Work Breakdown Structures (WBS).
- Concepts of Quality Management: quality assurance, quality control methods, quality standards.
- Factors influencing project success or failure
- Risk management: health and safety, sustainability and green drivers for project success
- BCS guidelines on Green and Sustainable IT
- Financial appraisal methods, e.g. payback, discounted cash flow

- Research principles and approaches (e.g. the research process, purpose, sources of data including primary/secondary research, quantitative/qualitative data, objective/hypothesis formation, reliability, validity, generalisability)
- Research design strategies, (e.g. experiments, surveys, case studies), their advantages and limitations, and their suitability to a variety of research contexts
- Data collection & sampling methods (e.g. interviews, questionnaires, observation), and their advantages and limitations in a variety of contexts
- Developing and structuring a research proposal: problem identification, formulating aims/hypotheses, sampling, sustainability and ethical issues and the practicalities of design
- Referencing conventions (e.g. the Harvard system, numeric system, IEEE)
- Critical, analytical thinking and writing

EARNING AND TEACHING STRATEGY

The study time for the module is divided as follows:

Activity type	Hours	Percentage
Scheduled learning	60	30%
Independent learning	140	70%
Placement learning	0	0%
TOTAL	200	100%

ASSESSMENT

Assessment Component 1

(Tick one)

Written exam Coursework Practical

Mode of assessment	Volume	Weighting
Essay	2500 words	50%

Assessment Component 2

(Tick one)

Written exam Coursework Practical

Mode of assessment	Volume	Weighting
Research Proposal	2500 words	50%

Assessment Summary

Activity type	Percentage
Written exam	0%
Coursework	100%
Practical	0%
TOTAL	100%

READING LIST

Module Code	DUM5007	
Module Title	Project Management and Research Methods	
Classification	Reading List entry	Electronic*
Essential	Hughes, B. (2015), 5 th Edition <i>Project Management for IT-Related Projects</i> , british Computer Society	<input checked="" type="checkbox"/>
Essential	Marder, M. (2011) <i>Research Methods for Science</i> , Cambridge University Press: Cambridge.	<input checked="" type="checkbox"/>
Essential	Weaver, P. (2004) <i>Success in Your Project: a Guide to Student System Development Projects</i> , Prentice Hall: Harlow	<input checked="" type="checkbox"/>
Further	Newton, R. (2016), <i>Project Management Step by Step</i> , FT Publishing International	<input checked="" type="checkbox"/>
Further	Dobson, M.S. (2010) <i>Creative Project Management</i> . McGraw-Hill	<input checked="" type="checkbox"/>
Further	Larson, E.W. (2017) 7 th Edition, <i>Project Management</i> . McGraw-Hill	<input type="checkbox"/>
Further	Sommerville, Ian (2015) <i>Software Engineering</i> , Global Edition, Pearson Education	<input checked="" type="checkbox"/>
Further	Teagarden, David (2015) <i>Systems Analysis and Design: An Object-Oriented Approach with UML</i> 5th Edition, Wiley	<input type="checkbox"/>
Further	Baase, S. (2008) 3 rd Edition <i>A Gift of Fire: Social, Legal, and Ethical Issues for Computing and the Internet</i> . International Edition, Pearson: NY	<input checked="" type="checkbox"/>
Further	Klein, G. and Dabney, A. (2013) <i>The Cartoon Guide To Statistics</i> , Hill and Wang: NY.	<input checked="" type="checkbox"/>
Further	Quinn, M. J. (2009) 3 rd Edition, <i>Ethics for the Information Age: International Edition</i> , Pearson: NY	<input checked="" type="checkbox"/>
Further	http://www.acm.org	<input checked="" type="checkbox"/>
Further	http://www.ieee.org	<input checked="" type="checkbox"/>
Further	http://www.bcs.org	<input checked="" type="checkbox"/>
Further	http://www.theregister.co.uk	<input checked="" type="checkbox"/>