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MODULE DESCRIPTOR

Module Title

Software Project Engineering

Reference	CMM004	Version	10
Created	April 2018	SCQF Level	SCQF 11
Approved	April 2005	SCQF Points	15
Amended	June 2018	ECTS Points	7.5

Aims of Module

To introduce principles and techniques involved in working as part of a team, planning, specifying, designing, implementing, testing and documenting a software package by means of a systematic object-oriented software engineering approach.

Learning Outcomes for Module

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

1	Communicate, organise and work as a productive member of a cohesive software development team.
2	Undertake project planning to analyse and determine the work schedule and resources required for the project, and Requirement Analysis to identify the features of the application.
3	Consider the quality assurance, commercial and economic context, and social, ethical and legal requirements for developing a software package.
4	Perform Systems Design, based on the Requirements, to define how the system will work.
5	Reflect on personal and team performance describing the requirements analysis, design and implementation of the system.

Indicative Module Content

Project Plan. Agile methodology. Project team management. Communication skills. Quality assurance and legal requirements. Requirements analysis including functional requirements and non?functional requirements. Interface design and evaluation. Design including object?oriented design methods. System testing. System evaluation. User document. An ethical review of the project, together with a plan to address any ethical issues.

Module Delivery

Key concepts are introduced and illustrated through the medium of lectures. However the main emphasis of the course is focused on the laboratory sessions in which the student will progress through a series of graded exercises which are intended to test the student's understanding of the lecture content and to develop proficiency in the practical application of software engineering skills and team work.

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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	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, 5
Description:	This component is a group software design and implementation project worth 100% of the total module assessment.				

MODULE PERFORMANCE DESCRIPTOR

Explanatory Text

The calculation of the overall grade for this module is based on 100% weighting of C1. An overall minimum grade D is required to pass the module

Module Grade	Minimum Requirements to achieve Module Grade:
A	The student needs to achieve an A in C1
B	The student needs to achieve a B in C1.
C	The student needs to achieve a C in C1.
D	The student needs to achieve a D in C1.
E	The student needs to achieve an E in C1.
F	The student needs to achieve an F in C1.
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	PRESSMAN.R.S., MAXIM B.R.,2014. Software Engineering: A Practitioner's Approach. 8th Edition., McGraw-Hill.
2	Cole R., Scotcher, E., (2015), Brilliant Agile Project Management, A Practical Guide to Using Agile, Scrum and Kanban, Pearson Education
3	COHN, M.,2010. Succeeding with Agile: Software Development using SCRUM. Addison-Wesley (ebook)
4	WINDER.R., and ROBERTS. G., 2006. Developing Java Software. Bott, F, (2014) Professional Issues in Information Technology, 2nd edition, BCS
5	RUMPE,B., 2016. Modeling with UML : language, concepts, methods. Springer.