

Module Code	Pre-requisite Module codes	Co-Requisite Modules code(s)	ISCED Code	Subject Code	ECTS Credits	NFQ Level (CPD)#
TBD	TBD				10	7
Module Title	Software Testing					

Software testing

School Responsible:	School of Computing
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Module Overview:

Software testing is closely associated with information systems security and quality assurance.

This module covers the knowledge and practical skills to plan and implement software testing in a generic development environment – i.e. it is not language specific. To place software development in context, this module covers the background to software testing, and the principles of testing such as test case, scenarios, bug detection, defect clustering, and beta testing. The tests can be associated with Agile development method.

The aim of this module is to enable the learner to develop their knowledge and skills in software testing as a discipline, whilst also providing an understanding of systems quality assurance and security to set software testing in the context of software development.

Learning Outcomes (LO):

On Completion of this module, the learner will be able to:

1	Understand the value of the process of software testing.
2	Understand the relationship between software testing and quality assurance.
3	Understand the relationship between software testing and systems security.
4	Explain and discuss modern software testing issues.
5	Explain and discuss where in the development life cycle the stage of software testing is situated.
6	Explain and discuss how software testing relates to systems analysis.
7	Explain how the software of modern information systems can be prepared for testing, and the processes that follow.
8	Plan an effective test approach.

Indicative Syllabus:

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Taking a perspective of software development as a discipline, content will relate to:

- Examining the software specification
- Examining software code
- Configuration testing
- Compatibility testing
- Usability testing
- Testing security
- Testing documentation
- Testing tools and automated testing
- Beta testing
- Designing a test case. Tracking a test case
- Reporting a test case and measuring test case success

Learning and Teaching Methods:

The course delivery involves a combination of lectures and labs which may incorporate the use of blended learning techniques as appropriate throughout the delivery.

Total Teaching Contact Hours	39
Total Self-Directed Learning Hours	148

Module Delivery Duration:

This module is delivered over one semester

Assessment		
Assessment Type	Weighting (%)	LO Assessment (No.)
Final Exam	70%	1 – 8
In-class examination	30%	1 - 8
Module Specific Assessment Arrangements (if applicable)		
(a) Derogations from General Assessment Regulations		
(b) Module Assessment Thresholds		
(c) Special Repeat Assessment Arrangements		

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Essential Reading: (author, date, title, publisher)

Laboon, B. (2016), **A Friendly Introduction to Software Testing**, CreateSpace Independent Publishing Platform

Supplemental Reading

Amman, P. and Offutt, J. (2016) Introduction to Software Testing, 2nd Edition, Cambridge University Press

Goucher, A. and Riley, T. (Eds.) (2009) Beautiful Testing: Leading Professionals Reveal How They Improve Software, O'Reilly Media

Kaner, C., Bach, J., Pettichord, B. (2002) Lessons Learned in Software Testing: A Context Driven Approach, John Wiley & Sons

Web references, journals and other

Relevant web references and journals will be indicated during the teaching of the module.

Version No:		Amended By	
Commencement Date		Associated Programme Codes	

Modules that are to be offered as Stand-Alone CPD Programmes must have an NFQ level assigned

*Details of the assessment schedule should be contained in the student handbook for the programme stage.

Date of Academic Council approval

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