H6SQT: Software Quality and Testing

Module Code:		ΤC			
Long Title		Software Quality and Testing APPROVED			
Title		Software Quality and Testing			
Module Level:		LEVEL 6			
EQF Level:		5			
EHEA Level:		Short Cycle			
Credits:					
Module Coordinator:					
Module Author:		lex Courtney			
Departments:		chool of Computing			
Specifications of the qualifications and experience required of staff		Master's degree in computing or cognate discipline.			
Learning Outcomes					
On successful co	On successful completion of this module the learner will be able to:				
#	Learning Outcome	ng Outcome Description			
L01	Describe the softwar	Describe the software testing and quality industry			
LO2	Identify and describe	dentify and describe different types of testing			
LO3	Identify and describe	dentify and describe various test design techniques			
LO4	Describe a range of	be a range of test management approaches			
LO5	Design and run tests	and run tests using a variety of languages/tools			
Dependencies					
Module Recommendations					
No recommendations listed					
Co-requisite Modules					
No Co-requisite modules listed					
Entry requirements		Learners should have attained the knowledge, skills and competence gained from stage 1 of the BSc (Hons) in Computing.			

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Module Content & Assessment		
Indicative Content		
An introduction to testing Types of problems Test types Objectives of testing. Steps in analysing an object and designing appropriate tests The testing industry. Seven principles of testing. Fundamental test process. Psychology of testing		
Test types expanded Black/white box testing Regression testing Unit testing Integration testing System testing Sanity testing Smoke testing Interface testing Regression testing Beta/Acceptance testing.		
Communication & Documentation Requirements analysis. Problem reporting. Standard documentation techniques.		
Practical software testing Unit testing & automation live example		
Testing for the web Performance testing Logging Browser compatibility testing. Progressive enhancement techniques. Accessibility testing		
User testing A/B testing. Acceptance testing. Feedback formats		
Modern development paradigms Agile. Waterfall. TDD		
Practical software testing More software testing tools		
Impact and Risk What is risk Risk based testing & product quality. Defect management		
Practical work Students work on a practical project(likely Team project) and implement an entire testing strategy.		
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Practical work Presentations.		
Assessment Breakdown %	%	
Coursework 100.00%		

Assessments

Full Time					
Coursework					
Assessment Type:	Formative Assessment	% of total:	Non-Marked		
Assessment Date:	n/a	Outcome addressed:	1,2,3,4,5		
Non-Marked:	Yes				
Assessment Description: Ongoing feedback on ongoing tutor	ial activities. Feedback on regular reflection	l.			
Assessment Type:	Continuous Assessment	% of total:	20		
Assessment Date:	n/a	Outcome addressed:	1,2,3,4,5		
Non-Marked:	No				
Assessment Description: Students will be assessed in class on a bi-weekly basis, having to upload lab content					
Assessment Type:	Continuous Assessment	% of total:	30		
Assessment Date:	n/a	Outcome addressed:	1,2,3,4		
Non-Marked:	No				
Assessment Description: Students must answer a theory-based quiz on the software testing industry and test types					
Assessment Type:	Project	% of total:	50		
Assessment Date:	n/a	Outcome addressed:	4,5		
Non-Marked:	No				
Assessment Description: Students must practically test and produce a report for a major piece of software that they have created					
No End of Module Assessment					
No Workplace Assessment					
Reassessment Requirement					
Repeat examination Reassessment of this module will co	onsist of a repeat examination. It is possible	that there will also be a requirement to be i	eassessed in a coursework element.		

Reassesment Description Coursework Only This module is reassessed solely on the basis of re-submitted coursework. There is no repeat written examination. Students failing Software Quality will be given a piece of software to develop a fleshed-out testing plan and report for, including practical tests

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Module Workload							
Module Target Workload Hours 0 Hours							
Workload: Full Time							
Workload Type	Workload Description	Hours	Frequency	Average Weekly Learner Workload			
Lecture	Classroom & Demonstrations (hours)	24	Every Week	24.00			
Tutorial	Other hours (Practical/Tutorial)	12	Every Week	12.00			
Independent Learning	Independent learning (hours)	89	Every Week	89.00			
Total Weekly Contact Hours			36.00				

Module Resources				
Recommended Book Resources				
Brian Hambling et al,. (2019), , Software Testing: An ISTQB-BCS Certified Tester Foundation guide, BCS, [978				
Supplementary Book Resources				
Bernard Homès,. (2013), , Fundamentals of Software Testing.				
This module does not have any article/paper resources				
This module does not have any other resources				
Discussion Note:				
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