

SWRE C8022: Introduction to Software Engineering

Module Details	
Module Code:	SWRE C8022
Full Title:	Introduction to Software Engineering APPROVED
Valid From::	Semester 1 - 2019/20 (June 2019)
Language of Instruction:	English
Duration:	1 Semester
Credits::	5
Module Owner::	Bernadette Brosnan
Departments:	Unknown
Module Description:	Students completing this module will be capable of applying principles of software engineering when developing software.

Module Learning Outcome	
On successful completion of this module the learner will be able to:	
#	Module Learning Outcome Description
MLO1	Be aware of different process models and have a detailed understanding of one such model
MLO2	Understand how a software team functions effectively and analyse the various roles within a software team
MLO3	Demonstrate an understanding of the differences between agile and plan-driven approaches
Pre-requisite learning	
Module Recommendations <i>This is prior learning (or a practical skill) that is strongly recommended before enrolment in this module. You may enrol in this module if you have not acquired the recommended learning but you will have considerable difficulty in passing (i.e. achieving the learning outcomes of) the module. While the prior learning is expressed as named DkIT module(s) it also allows for learning (in another module or modules) which is equivalent to the learning specified in the named module(s).</i>	
No recommendations listed	

Module Indicative Content
Software Engineering Best practices, Standards and concepts
Agile Methods Characteristics of Agile Methods Focus on Scrum and Extreme Programming .
Process Implementation Follow a development method from start to finish
Software teams Software Teams and team roles
Test First Development Test First Development in the software development process

Module Assessment	
Assessment Breakdown	%
Course Work	50.00%
Final Examination	50.00%
Module Special Regulation	

Assessments

Full Time On Campus			
Course Work			
Assessment Type	Class Test	% of Total Mark	15
Marks Out Of	0	Pass Mark	0
Timing	Week 6	Learning Outcome	1,3
Duration in minutes	0		
Assessment Description Test covering topics covered in lectures			
Assessment Type	Continuous Assessment	% of Total Mark	35
Marks Out Of	0	Pass Mark	0
Timing	Week 12	Learning Outcome	1,2,3
Duration in minutes	0		
Assessment Description Students will participate in a staged group project that covers the software development life cycle.			
No Project			
No Practical			
Final Examination			
Assessment Type	Formal Exam	% of Total Mark	50
Marks Out Of	0	Pass Mark	0
Timing	End-of-Semester	Learning Outcome	1,2,3
Duration in minutes	0		
Assessment Description The Final examination will be a 2-hour written test.			

Part Time On Campus			
Course Work			
Assessment Type	Class Test	% of Total Mark	15
Marks Out Of	0	Pass Mark	0
Timing	Week 6	Learning Outcome	1,3
Duration in minutes	0		
Assessment Description Test covering topics covered in lectures			
Assessment Type	Class Test	% of Total Mark	35
Marks Out Of	0	Pass Mark	0
Timing	Week 12	Learning Outcome	1,2,3
Duration in minutes	0		
Assessment Description Students will participate in a staged group project that covers the software development life cycle.			
No Project			
No Practical			
Final Examination			
Assessment Type	Formal Exam	% of Total Mark	50
Marks Out Of	0	Pass Mark	0
Timing	End-of-Semester	Learning Outcome	1,2,3
Duration in minutes	120		
Assessment Description The Final examination will be a 2-hour written test.			
Reassessment Requirement			
A repeat examination Reassessment of this module will consist of a repeat examination. It is possible that there will also be a requirement to be reassessed in a coursework element.			

Module Workload

Workload: Full Time On Campus

Workload Type	Contact Type	Workload Description	Frequency	Average Weekly Learner Workload	Hours
Lecture	Contact	Presentation of Software Engineering and Design Conceptual Knowledge and Techniques	Every Week	1.00	1
Tutorial	Contact	Developing software engineering models/designs for given problem scenarios .	Every Week	1.00	1
Practical	Contact	Using Tools to solve Software Engineering problems	Every Week	1.00	1
Independent Study	Non Contact	Students will prepare answers to tutorial questions and practical exercises.	Every Week	5.00	5
				Total Weekly Learner Workload	8.00
				Total Weekly Contact Hours	3.00

Workload: Part Time On Campus

Workload Type	Contact Type	Workload Description	Frequency	Average Weekly Learner Workload	Hours
Lecture	Contact	Presentation of Software Engineering and Design Conceptual Knowledge and Techniques	Every Week	1.00	1
Tutorial	Contact	Developing software engineering models/designs for given problem scenarios .	Every Week	1.00	1
Practical	Contact	Using Tools to solve Software Engineering problems	Every Week	1.00	1
Independent Study	Non Contact	Students will prepare answers to tutorial questions and practical exercises.	Every Week	5.00	5
				Total Weekly Learner Workload	8.00
				Total Weekly Contact Hours	3.00

Module Resources

Supplementary Book Resources

Ian Sommerville. (2015), Software Engineering, 10. Addison Wesley, [ISBN: 9781292096131].
Mike Cohn. (2009), Succeeding with Agile: Software Development Using Scrum, 1. Addison Wesley, [ISBN: 0321579364].
Moreira M.. (2013), Being Agile: Your Roadmap to Successful Adoption of Agile, APRESS, [ISBN: 143025839X].
Rod Stephens. (2015), Beginning Software Engineering, Wiley, [ISBN: 9781118969144].

This module does not have any article/paper resources

Other Resources

IEEE. Transactions on Software Engineering.
IEEE. IEEE Software.
ICSE. International Conference of Software Engineering.