

Module Title:	Software Engineering (Cybercrime)
Language of Instruction:	English
Credits:	5
NFQ Level:	7
Module Delivered In	No Programmes
Teaching & Learning Strategies:	Lectures, tutorials on specific techniques, continuous assessment, final exam
Module Aim:	To introduce OO Analysis and Design using UML, testing and basic project management
Learning Outcomes	
<i>On successful completion of this module the learner should be able to:</i>	
LO1	Evaluate core software development processes
LO2	Apply project management principles to a software project
LO3	Employ object oriented software engineering principles. Concepts and techniques on new and existing projects
LO4	Appraise and apply software testing techniques
Pre-requisite learning	
Module Recommendations	
<i>This is prior learning (or a practical skill) that is recommended before enrolment in this module.</i>	
No recommendations listed	
Incompatible Modules	
<i>These are modules which have learning outcomes that are too similar to the learning outcomes of this module.</i>	
No incompatible modules listed	
Co-requisite Modules	
No Co-requisite modules listed	
Requirements	
<i>This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed.</i>	
No requirements listed	

Module Content & Assessment

Indicative Content

Software Engineering

Software development processes review, critique and practice: e.g. Waterfall, UP, Agile (e.g. Scrum, XP, Kanban) with particular emphasis on management activities (e.g. scheduling, costing)

OO Analysis, Design using the UML

User requirements capture, use cases, OO Analysis & Design using core UML models e.g. class diagrams; sequence and activity diagrams

Testing

Test cases design using black box and white box techniques, test-driven development and unit testing practices. User acceptance testing, stress testing.

Assessment Breakdown	%
Continuous Assessment	25.00%
Practical	25.00%
End of Module Formal Examination	50.00%

Continuous Assessment

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Other	Creation of a development plan; discuss software engineering wisdom quotes; essays on topical software engineering issues/new development;	1,2,3	25.00	n/a

No Project

Practical

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Practical/Skills Evaluation	Developing requirements and design documents. Apply testing techniques on/from code and/or specifications;	1,4	25.00	n/a

End of Module Formal Examination

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Formal Exam	n/a	1,2,3,4	50.00	End-of-Semester

SETU Carlow Campus reserves the right to alter the nature and timings of assessment

Module Workload

Workload: Full Time		
<i>Workload Type</i>	<i>Frequency</i>	<i>Average Weekly Learner Workload</i>
Lecture	20 Weeks per Stage	3.00
Estimated Learner Hours	20 Weeks per Stage	4.00
Total Hours		140.00

