

Module Title:	Software Engineering for Games
Language of Instruction:	English
Credits:	5
NFQ Level:	6
Module Delivered In	1 programme(s)
Teaching & Learning Strategies:	Lectures, tutorials and practicals on specific techniques, continuous assessment, final exam;
Module Aim:	To equip the learners with the ability to employ object oriented design and methodologies within a software process as used in the games industry.
Learning Outcomes	
<i>On successful completion of this module the learner should be able to:</i>	
LO1	Discover object oriented domain models from requirements
LO2	Employ object oriented software engineering principles and techniques to produce robust software architectures
LO3	Communicate object oriented designs
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 Requirements Analysis

Analysis modeling, object oriented domain modeling, notations (e.g. UML) and tools

Software Design

Object oriented design concepts and principles, logical architecture, fundamental design patterns.

Object oriented software design

SOLID principles, DRY, Demeter, cohesion & coupling

Design Patterns:

Some GoF patterns, MVC pattern, patterns applicable to games

Assessment Breakdown	%
Continuous Assessment	15.00%
Project	20.00%
Practical	25.00%
End of Module Formal Examination	40.00%

Continuous Assessment

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Examination	Class test	2	5.00	Week 7
Examination	n/a	1,3	10.00	n/a

Project

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Project	Collaborative project to produce artefacts relevant to the development of a game.	1,2,3	20.00	Week 22

Practical

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Practical/Skills Evaluation	A series of lab sessions supported by worksheets to gain skills in prototyping tools, need finding and evaluation	1,2,3	25.00	Every Second Week

End of Module Formal Examination

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Formal Exam	No Description	1,2,3	40.00	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	12 Weeks per Stage	2.00
Laboratory	12 Weeks per Stage	1.00
Tutorial	12 Weeks per Stage	1.00
Estimated Learner Hours	15 Weeks per Stage	5.13
Total Hours		125.00

Module Delivered In

Programme Code	Programme	Semester	Delivery
CW_KCCGD_B	Bachelor of Science (Honours) in Computer Games Development	4	Mandatory