

<b>Module Title:</b>	Software Engineering for Games
<b>Language of Instruction:</b>	English
<b>Credits:</b>	5
<b>NFQ Level:</b>	6
<b>Module Delivered In</b>	<a href="#">1 programme(s)</a>
<b>Teaching &amp; Learning Strategies:</b>	Lectures, tutorials and practicals on specific techniques, continuous assessment, final exam;
<b>Module Aim:</b>	To equip the learners with the ability to employ object oriented design and methodologies within a software process as used in the games industry.
<b>Learning Outcomes</b>	
<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
<b>Pre-requisite learning</b>	
<b>Module Recommendations</b> <i>This is prior learning (or a practical skill) that is recommended before enrolment in this module.</i>	
No recommendations listed	
<b>Incompatible Modules</b> <i>These are modules which have learning outcomes that are too similar to the learning outcomes of this module.</i>	
No incompatible modules listed	
<b>Co-requisite Modules</b>	
No Co-requisite modules listed	
<b>Requirements</b> <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
<b>Software Requirements Analysis</b> Analysis modeling, object oriented domain modeling, notations (e.g. UML) and tools
<b>Software Design</b> Object oriented design concepts and principles, logical architecture, fundamental design patterns.
<b>Object oriented software design</b> SOLID principles, DRY, Demeter, cohesion & coupling
<b>Design Patterns:</b> 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**

<b>Workload: Full Time</b>		
<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	<a href="#">Bachelor of Science (Honours) in Computer Games Development</a>	4	Mandatory