Module Title:	Software Engineering for Games 1
Language of Instruction:	English

Credits:	10

NFQ Level:	6

Module Delivered In	No Programmes

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	
On successful completion of this module the learner should be able to:	
LO1	Apply a suitable software development process.
LO2	Use tools for software development within an agile context.
LO3	Employ object oriented software engineering principles, concepts and techniques on new and existing projects.
LO4	Produce object oriented design documents.

Pre-requisite learning	
Module Recommendations *This is prior learning (or a practical skill) that is recommended before enrolment in this module.*	
No recommendations listed	
Incompatible Modules *These are modules which have learning outcomes that are too similar to the learning outcomes of this module.*	
No incompatible modules listed	
Co-requisite Modules	
No Co-requisite modules listed	
Requirements *This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed.*	
No requirements listed	

Module Content & Assessment

Indicative Content
Object Oriented Software Engineering for Games Development Need for, issues, software development process models, evolutionary software development (e.g. the Unified Process), agility, modern object oriented concepts (e.g. interfaces)
Software Requirements Analysis Analysis modeling (e.g. vision document, use cases, supplementary specification), object oriented domain modeling, notations (e.g. UML) and tools
Software Design Object oriented design concepts and principles, logical architecture, fundamental design patterns, notations (e.g. UML) and tools
Coding Code generation from design
Advanced Design Patterns: GoF patterns, MVC pattern

Assessment Breakdown	%
Continuous Assessment	20.00%
Project	20.00%
End of Module Formal Examination	60.00%

Continuous Assessment				
Assessment Type	*Assessment Description*	*Outcome addressed*	*% of total*	*Assessment Date*
Examination	Class test	3	5.00	Week 7
Case Studies	Active participation	1,2,3,4	5.00	n/a
Case Studies	Development of an individual Object Oriented Analysis and Design for a simple game in two iterations lasting 12 weeks	1,2,3,4	10.00	Week 9

Project				
Assessment Type	*Assessment Description*	*Outcome addressed*	*% of total*	*Assessment Date*
Project	Full time joint project for 3 weeks combined with the other modules during which the students have to produce the artefacts relevant to the development of a game in group.	1,2,3,4	20.00	Week 22

No Practical

End of Module Formal Examination				
Assessment Type	*Assessment Description*	*Outcome addressed*	*% of total*	*Assessment Date*
Formal Exam	No Description	1,3,4	60.00	End-of-Semester

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

Module Workload

Workload: Full Time		
Workload Type	*Frequency*	*Average Weekly Learner Workload*
Lecture	30 Weeks per Stage	2.00
Laboratory	30 Weeks per Stage	1.00
Estimated Learner Hours	30 Weeks per Stage	3.00
Tutorial	30 Weeks per Stage	1.00
	Total Hours	210.00