ENGR: Software Engineering for Games

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	
On successful completion of this module the learner should be able to:	
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 *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

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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

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Module Workload

Workload: Full Time		
Workload Type	*Frequency*	*Average Weekly Learner Workload*
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