

Module Title:	2D and 3D Environmental Modelling
Language of Instruction:	English
Credits:	10
NFQ Level:	8
Module Delivered In	No Programmes
Teaching & Learning Strategies:	Lectures, Tutorials, Demonstrations, project work, case studies, videos, field trip , location research. Module will be delivered though a studio based environment with lecture / practical and project work running in conjunction with each other
Module Aim:	The aim of the module is to introduce the process by which a game environment is created, from concept art to final game environment in Blender 3D or similar industry standard software. Through a practical project framework, students learn the tools and skills needed to create 3d environments for games, 3D characters, 3D modeling and 3D assets for use across the interactive digital art and design area.

Learning Outcomes	
<i>On successful completion of this module the learner should be able to:</i>	
LO1	Develop an understanding of the interactive experience, and environment creation process from concept and planning to practical production of the final environments. Understand and develop skills in the area of photogrammetry to aid in the development of effective and immersive environment and characters.
LO2	Be fluent in the range of tools and skills necessary for environment modeling including poly Modeling, Texture creation/ Material creation, optimizing assets for real time use
LO3	Collaborate effectively in the studio environment allowing for an adaptive design process, taking on critical evaluation and adapting design work to incorporate it. Understand the work flow and process of a studio environment. Give and receive constructive feedback based on a collaborative studio environment.
LO4	Be aware of the role of the environment artist / designer in a design development process, consider dependencies in other aspects of design production, assess technical requirements and limitations of a target platform or technology and successfully design and produce assets to specification.

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

Concept analysis and planning

Concept analysis and planning , interpreting concept art.

Polygonal modeling.

Polygonal modeling. Navigation, object creation, polygonal modeling, Box modeling.

Scene Layout

Scene Layout, Low poly modeling, working from designs/ Blueprints, using reference, Scene blocking,testing iterative development.

Modular Design

Modular Design, Asset Linking techniques. generated and repeating materials/ texture maps. Designing for re-use.

Materials and Lighting

Materials and Lighting, Texture painting, tiling textures, Light baking.

Game engine integration

Game engine integration, Physics, collisions, engine prep.

Assessment Breakdown

%

Project

100.00%

No Continuous Assessment

Project

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Project	The subject will be assessed through the completion of project briefs and the submission of a final solution and research journal/ notebook / Sketchbook. The assessment and feedback will be an opportunity for the student to focus on their work and evaluate their own progress and development.	1,2,3,4	10.00	Week 7
Project	The subject will be assessed through the completion of multiple project briefs and the submission of a final solution and research journal/ notebook / Sketchbook. The assessment and feedback will be an opportunity for the student to focus on their work and evaluate their own progress and development. Projects will be run as part of a studio based environment	1,2,3,4	10.00	Week 13
Project	The subject will be assessed through the completion of multiple project briefs and the submission of a final solution and research journal/ notebook / Sketchbook. The assessment and feedback will be an opportunity for the student to focus on their work and evaluate their own progress and development. Projects will be run as part of a studio based environment	1,2,3,4	20.00	Week 20
Project	The subject will be assessed through the completion of multiple project briefs and the submission of a final solution and research journal/ notebook / Sketchbook. The assessment and feedback will be an opportunity for the student to focus on their work and evaluate their own progress and development. Projects will be run as part of a studio based environment	1,2,3,4	20.00	Week 25
Project	The subject will be assessed through the completion of multiple project briefs and the submission of a final solution and research journal/ notebook / Sketchbook. The assessment and feedback will be an opportunity for the student to focus on their work and evaluate their own progress and development. Projects will be run as part of a studio based environment	1,2,3,4	40.00	Week 27

No Practical

No End of Module Formal Examination

No Continuous Assessment

Project

Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Project	n/a	1,2,3,4	100.00	n/a

No Practical

No End of Module Formal Examination

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	Every Week	1.00
Laboratory	Every Week	3.00
Independent Learning Time	Every Week	2.00
Total Hours		6.00

Discussion Note:	TEST
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