Module Title:	Advanced 2D and 3D Character Modeling
Language of Instruction:	English

Credits:	5

NFQ Level:	8

Module Delivered In	1 programme(s)

Teaching & Learning Strategies:	Tutorials, Demonstrations, project work, case studies, videos. Module will be delivered though a studio based environment with practical and project work running in conjunction with each other

Module Aim:	The aim of the module is to advance on 2D and 3D character creation from concept art to final render. Through a practical project framework, students learn the tools and skills needed to create advanced 2D & 3D characters, 3D modeling and 3D assets for use across the interactive digital art and design area.

Learning Outcomes	
On successful completion of this module the learner should be able to:	
LO1	Develop an understanding of human anatomy and the character creation process from concept design to final render. Understand and develop skills in the area of character design for animation for various media streams.
LO2	Be fluent in the range of tools and skills necessary for 2D & 3D character modeling including poly Modeling, Texture creation/ Material creation, Character Rigging and optimizing assets for real time use.
LO3	Be aware of the role of the character 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. Understand the work flow and process of a studio environment. Give and receive constructive feedback based on a collaborative studio environment.

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
Concept analysis and planning Concept analysis and planning , interpreting concept art.
Anatomy Human / Animal Anatomy, Facial Structure, Facial Expression
Modeling & Sculpting Polygonal modeling. Navigation, object creation, polygonal modeling, Box modeling.
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.
Character Rigging Rigging for 2D & 3D Character Animation.

Assessment Breakdown	%
Project	40.00%
Practical	60.00%

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	20.00	Week 6
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	20.00	Week 13

Practical				
Assessment Type	Assessment Description	Outcome addressed	% of total	Assessment Date
Practical/Skills Evaluation	The subject will be assessed through the completion of in-class tutorials and practical assignments. 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	5.00	Week 2
Practical/Skills Evaluation	The subject will be assessed through the completion of in-class tutorials and practical assignments. 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	10.00	Week 3
Practical/Skills Evaluation	The subject will be assessed through the completion of in-class tutorials and practical assignments. 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	5.00	Week 4
Practical/Skills Evaluation	The subject will be assessed through the completion of in-class tutorials and practical assignments. 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	5.00	Week 5
Practical/Skills Evaluation	The subject will be assessed through the completion of in-class tutorials and practical assignments. 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	5.00	Week 7
Practical/Skills Evaluation	The subject will be assessed through the completion of in-class tutorials and practical assignments. 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	10.00	Week 10
Practical/Skills Evaluation	The subject will be assessed through the completion of in-class tutorials and practical assignments. 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	5.00	Week 9
Practical/Skills Evaluation	The subject will be assessed through the completion of in-class tutorials and practical assignments. 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	10.00	Week 10
Practical/Skills Evaluation	The subject will be assessed through the completion of in-class tutorials and practical assignments. 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	5.00	Week 11

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		
Workload Type	*Frequency*	*Average Weekly Learner Workload*
Laboratory	12 Weeks per Stage	4.00
Independent Learning Time	15 Weeks per Stage	5.13
	Total Hours	125.00

Module Delivered In

Programme Code	Programme	Semester	Delivery
CW_KCIAD_B	Bachelor of Science (Honours) in Computing in Interactive Digital Art and Design	7	Mandatory

Discussion Note:	TEST