

<b>Module Code:</b>	ARD536
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<b>Module Title:</b>	Environment Modelling
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<b>Level:</b>	5	<b>Credit Value:</b>	20
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<b>Cost Centre(s):</b>	GADC	<b>JACS3 code:</b>	I630
		<b>HECoS code:</b>	101019

<b>Faculty:</b>	Arts, Science and Technology	<b>Module Leader:</b>	Steve Jarvis
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Scheduled learning and teaching hours	50 hrs
Guided independent study	150 hrs
Placement	0 hrs
<b>Module duration (total hours)</b>	<b>200 hrs</b>

<b>Programme(s) in which to be offered (not including exit awards)</b>	Core	Option
BA (hons) / MDes Game Art	✓	<input type="checkbox"/>
BA (hons) / MDes Visual Effects	✓	<input type="checkbox"/>

<b>Pre-requisites</b>
None

**Office use only**

Initial approval: 01/05/2018

Version no: 1

With effect from: 01/09/2019

Date and details of revision:

Version no:

**Module Aims**

This module will introduce students to the Environment Modelling aspect of the game art pipeline, providing them with the knowledge and skills required to design and build their own 3D assets for video game environments.

**Intended Learning Outcomes**

Key skills for employability

KS1	Written, oral and media communication skills
KS2	Leadership, team working and networking skills
KS3	Opportunity, creativity and problem-solving skills
KS4	Information technology skills and digital literacy
KS5	Information management skills
KS6	Research skills
KS7	Intercultural and sustainability skills
KS8	Career management skills
KS9	Learning to learn (managing personal and professional development, self-management)
KS10	Numeracy

At the end of this module, students will be able to

Key Skills

At the end of this module, students will be able to		Key Skills	
1	Demonstrate the ability to produce textured environment models.	KS3	KS6
		KS4	KS10
		KS5	
2	Demonstrate the design and creative process used to create Environment models.	KS1	KS4
		KS2	KS5
		KS3	KS6
3	Apply principles of colour, light, and composition to the design and development of a 3D scene.	KS4	KS8
		KS6	KS2
		KS7	
4	Deliver a portfolio of 3D models to a near professional standard.	KS4	KS9
		KS5	
		KS8	

**Transferable skills and other attributes**

- ability manage an independent workload
- contribute proactively to group critique
- communication skills
- understanding the requirements of environment modelling and the capability of a Game Engine
- note-taking; recording, referring and responding to information

**Derogations**

*None.*

**Assessment:**

## Indicative Assessment Tasks:

Students will be required to produce coursework in response to set assignments that demonstrate the student's ability to, create, develop, and adapt 3D Models for Video Games, based on ideas, design and peer review.

Assessment number	Learning Outcomes to be met	Type of assessment	Weighting (%)	Duration (if exam)	Word count (or equivalent if appropriate)
1	1-4	Coursework	100%		

**Learning and Teaching Strategies:**

- Contextual information for this module will be delivered as keynote lectures.
- Assignments presented to students will be designed to enable students to produce a body of work that demonstrates their ability in the production of 'Environment Models' for the video game industry.
- Lectures, workshops and critiques will enable the student to appreciate the similarities, divergences and application of creating custom geometry, terrain etc. with in-engine tools for different purposes.
- Tutorial guidance, group critique and student seminars will underpin of the skill development and understanding of the student.

**Syllabus outline:**

Key lectures will examine environment modelling theories and best practices, within the Game industry. Students will be introduced to the methods used in the development of 3D models for the video game industry.

During the practical based sessions, students will focus on project planning and process of project discussion. Underpinning theory and concepts will be introduced in lectures and further reinforced through peer review and group critiques. Projects will be set to challenge the students to make use of technical equipment and produce work relevant to their chosen theme and style. Students will gain insight and an understanding of how artwork should be prepared and presented to prospective employers.

Throughout the module, students will share work and will contribute constructively to feedback upon the work of their peers to form a community of practice. To complete this module, students will submit a portfolio of work which demonstrates the culmination of their project in response to set assignments. In addition to the body of work submitted for assessment, students will be expected to design, develop, and present a 3D scene for their portfolio websites, or other industry related websites.

## **Indicative Bibliography:**

### **Essential reading**

Derakhshani, D. (2015) *Introducing Autodesk Maya 2016*, Chichester: Sybex

Keller, E. (2013), *Maya Visual Effects the Innovator's Guide: Autodesk Official Press*. 2<sup>nd</sup> Rev. ed. Chichester: Sybex

Zimmerman, E. & Salen, K. (2003), *Rules of Play: Game Design Fundamentals*, Boston, Mass.: MIT Press.

### **Other indicative reading**

Ingrassia, M. (2009) *Maya for games modeling and texturing techniques with Maya and Mudbox*, Oxford: Focal (I x copy and e book available)

Lanier, L. (2007) *Maya professional tips and techniques*, Chichester: Sybex

Watkins, A. (2012) *Getting started in 3D with Maya create a project from start to finish: model, texture, rig, animate, and render in Maya*. Oxford: Focal Press (e book available)

### **Periodicals**

Creative Review,

Computer Arts

Develop (free online journal)

### **Online Resources**

Highend3D

CG Society

Pluralsight (paid for website not available)

Simply Maya

Unreal Engine