MODULE SPECIFICATION

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Refer to guidance notes for completion of each section of the specification.

Module Code:	COM558

Module Title:	Real-time Environmental Art for Game Engines

Level:	5	**Credit Value:**	20

Cost Centre(s):	GACP	JACS3 **code**: HECoS code:	I630 101268

Faculty	FAST	**Module Leader:**	Rich Hebblewhite

Scheduled learning and teaching hours	36 hrs
Placement tutor support	0 hrs
Supervised learning eg practical classes, workshops	0 hrs
Project supervision (level 6 projects and dissertation modules only)	0 hrs
Total contact hours	**36** hrs
Placement / work based learning	
Guided independent study	164 hrs
Module duration (total hours)	200 hrs

Programme(s) in which to be offered (not including exit awards)	Core	Option
BA (Hons) Game Art	✓	
BA (Hons) Game Art (with Industrial Placement)	✓	

Pre-requisites
None

Office use only
Initial approval: 15/06/2020 Version no:1
With effect from: 01/09/2020
Date and details of revision: Version no:

Module Aims
The aim of the module is to enable the analysis of contemporary game design styles and methodologies along with the planning, real world referencing and contextualisation process that informs them. In addition, broadening student knowledge of environmental design and scene production with emphasis on real time engine workflow and associated support tools in creating higher quality work form a key theme of this module.

Module Learning Outcomes - at the end of this module, students will be able to	
1	Identify and contextualise contemporary artistic design styles and methodologies in relation to game environments and asset development.
2	Utilise modern tools and technologies in the design and production of a real time game environment.
3	Engage with industry standard testing and appraisal methods in the development and quality assurance of a real time game environment.

Employability Skills The Wrexham Glyndŵr Graduate	I = included in module content A = included in module assessment N/A = not applicable
CORE ATTRIBUTES	
Engaged	**I/A**
Creative	**I/A**
Enterprising	**I/A**
Ethical	**I/A**
KEY ATTITUDES	
Commitment	**I/A**
Curiosity	**I/A**
Resilient	**A**
Confidence	**I/A**
Adaptability	**I/A**
PRACTICAL SKILLSETS	
Digital fluency	**I/A**
Organisation	**A**
Leadership and team working	**N/A**
Critical thinking	**I/A**
Emotional intelligence	**I/A**
Communication	**A**

Derogations
N/A

Assessment:

Indicative Assessment Tasks:

Indicative Assessment:

Students will be tasked with designing, building and testing a real time environment of their own choosing with a game engine. The scene will need to incorporate use of lighting, particle effects and use of additional procedural/automated tools in the production of terrain and scene assets.

The planning phase will require students to scout real life locations, use reference imagery in the creation of a pre-production portfolio. This portfolio will also incorporate an analysis of contemporary game scenes for further contextualisation.

The design and development phase will require students to work with industry tools and techniques to produce a real time game environment, along with relevant assets and effects. Assets produced in other modules can be incorporated within the final scene.

The testing phase will require students to test the quality of their work against established industry criteria including some scope for user focus group evaluations.

On completion of the above elements, the students will be required to engage in a reflective showcase of their work. Indicative word count is 4000 words.

Assessment number	Learning Outcomes to be met	Type of assessment	Weighting (%)
1	1,2,3	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 to engage with the assessment elements outlined.
- Lectures, workshops and critiques will enable the student to appreciate the similarities, divergences and application of real time environmental design and the various tools and techniques required to produce them.
- Tutorial guidance, group critique and student seminars will underpin of the skill development and understanding of the student.

Syllabus outline:

- Location scouting and referencing
- Mood boarding and location conceptualisation
- White boxing and prototyping
- In-engine lighting and shading
- In-engine scene design and development
- In-engine landscaping and topography
- Procedural tools for landscaping and environment capture
- Materials and particle effects
- Reflective practice and personal development in digital design
- Product testing and focus grouping

Indicative Bibliography:
Essential reading
Kramarzewski, A. De Nucci, E. (2018) Practical Game Design: Learn the art of game design through applicable skills and cutting-edge insights. Packt Publishing. Paperback – 19 Apr 2018. Shannon, T. (2017). Unreal engine 4 for design visualization. Addison-wesley (14 Aug. 2017).
Other indicative reading
Totten, C, W. (2014) An Architectural Approach to Level Design. A K Peters/CRC Press Pv, S. (n.d.). Unreal Engine 4 game development essentials. Packt Publishing (25 Feb. 2016).