

Module specification

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Module Code	GME414
Module Title	Game Asset Production
Level	4
Credit value	20
Faculty	FACE
HECoS Code	101019
Cost Code	GAGM
Pre-requisite module	N/A

Programmes in which module to be offered

Programme title	Core/Optional/Standalone
BSc (Hons) Game Development	Core
BA (Hons) Game Art and Animation	Core

Breakdown of module hours

Learning and teaching hours	36 hrs
Placement tutor support hours	0 hrs
Supervised learning hours e.g. practical classes, workshops	0 hrs
Project supervision hours	0 hrs
Active learning and teaching hours total	36 hrs
Placement hours	0 hrs
Guided independent study hours	164 hrs
Module duration (Total hours)	200 hrs

Module aims

This module aims to do the following:

- Introduce fundamental industry-standard workflows utilised within 3D game asset production.
- Familiarise students with industry-standard software packages and their application within contemporary game art practice.
- Develop understanding of core 3D asset production techniques, including modelling, UV mapping, and texturing workflows.
- Enable students to apply the complete asset development pipeline from pre-production through to game engine implementation.
- Support the production of a small-scale modular environment asset pack suitable for portfolio development.

Module Learning Outcomes

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

1	Identify viable concepts as part of a game asset pre-production process.
2	Utilise industry standard software, tools and techniques to develop 3D geometry.
3	Apply design principles and practices to produce textured 3D game assets.
4	Demonstrate assets as part of a game-ready asset pack.

Assessment

Indicative Assessment Tasks:

This section outlines the type of assessment task the student will be expected to complete as part of the module. More details will be made available in the relevant academic year module handbook.

This assessment will take the form of a portfolio submission evidencing the complete 3D asset production workflow from concept through to game engine implementation. Students will produce a workflow document that records key stages of the development process and demonstrates effective production practices throughout pre-production, 3D asset creation, texturing, and implementation. The final submission will include a completed modular asset pack presented within a real-time engine environment.

Assessment number	Learning Outcomes to be met	Type of assessment	Duration/Word Count	Weighting (%)	Alternative assessment, if applicable
1	1, 2, 3, 4	Portfolio	N/A	100%	N/A

Derogations

None

Learning and Teaching Strategies

The primary skill base of this module will be delivered through a series of lectures, demonstrations and practical work that will equip the students with the technical skills and confidence to develop 3D game assets. Content will be available for students to access synchronously and asynchronously and may indicatively include first and third-party tutorials and videos, supporting files, online activities and any additional content that supports their learning.

As this module progresses, experiential and peer learning strategies will be encouraged as the students' progress with their coursework. Class time will shift to more student-led coursework development time to focus of formative feedback for individual student achievement.

Welsh Elements

Students will have the right to submit assessed work in Welsh, to receive academic supervision and access learning resources and correspondence in Welsh. Students are encouraged to engage with Welsh cultural themes, creative elements and enterprising opportunities as part of student-led activities and assignments to facilitate wider contextual awareness and distinctive creative outputs.

Indicative Syllabus Outline

Indicative Syllabus includes the following topic areas:

- Introduction to Autodesk Suite.
- Research, Concepting & Pre-production.
- Full Game Asset Workflow.
- 3D Geometry Techniques & Topology.
- Conceptualisation, Photo bashing & Mood boards.
- UV Mapping, Textures & Materials.
- Scale, Resolution & Supporting Assets.
- Game Engine Integration for Game Assets.
- Modularity & Asset Packing.
- Portfolio Presentations & Showcasing.

Indicative Bibliography

Please note the essential reads and other indicative reading are subject to annual review and update.

Essential Reads:

Murdock, K. (2025), *Autodesk Maya 2026 Basics Guide*, Mission: SDC Publications.

Other indicative reading:

Arevalo, K., Tovar, M., Li, J. (2021), *Creating Games with Unreal Engine, Substance Painter, & Maya*, Boca Raton: CRC Press.

Kumar, A. (2020), *Beginning PBR Texturing : Learn Physically Based Rendering with Allegorithmic's Substance Painter*, New York: Apress.

Tickoo, S. (2024), *Autodesk Maya 2025: A Comprehensive Guide, 16th Edition*, Indiana: CADCIM Technologies.

Administrative Information

For office use only	
Initial approval date	July 2026
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Date and details of revision	
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