Prifysgol Wrecsam
Wrexham University

Module specification

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Module Code	GME507
Module Title	Character Production for Game Engines
Level	5
Credit value	20
Faculty	FACE
HECoS Code	101019
Cost Code	GAGM

Programmes in which module to be offered

Programme title	Is the module core or option for this programme
BA (Hons) Game Art	Core
BA (Hons) Game Art (With Industrial Placement)	Core

Pre-requisites

None

Breakdown of module hours

Learning and teaching hours	30 hrs
Placement tutor support	0 hrs
Supervised learning e.g. practical classes, workshops	0 hrs
Project supervision (level 6 projects and dissertation modules only)	0 hrs
Total active learning and teaching hours	**30** hrs
Placement / work based learning	0 hrs
Guided independent study	170 hrs
Module duration (total hours)	200 hrs

For office use only	
Initial approval date	10/05/2023
With effect from date	September 2023
Date and details of revision	March 2024 change of module code from COM568
Version number	2

Module aims

This module aims to expand students' skills and abilities in 3D character development and 3D character pipeline production. Students are to build on their prior knowledge of 3D character design to fully utilise characters within a game engine including introducing further gameplay interaction This gameplay interaction includes the addition of character rigging, animation, programming logic and user interaction within the game engine.

Module Learning Outcomes - at the end of this module, students will be able to:

1	Analyse contemporary practice to identify efficient strategies for 3D character production.
2	Utilise industry standard tools and techniques to produce a 3D character
3	Demonstrate a game-ready character within a scenario using a contemporary game engine.

Assessment

Indicative Assessment Tasks:

Coursework will take place throughout this module as a single workflow. Students will be required to expand upon their previous knowledge of 3D character art and progress with advanced techniques. This process will be achieved over several milestones.

Formative assessment will occur through several milestones throughout the module to ensure that students get the relevant feedback as the module progresses. These assessments will be largely based on the relevant concept, skills and design solutions required to meet the milestone.

On completion, students are required to engage in a reflective showcase of their work from initial designs to outcome.

Assessment number	Learning Outcomes to be met	Type of assessment	Weighting (%)
1	1, 2, 3	Portfolio	100%

Derogations

N/A

Learning and Teaching Strategies

In line with the Active Learning Framework, this module will be blended digitally with both a VLE and online community. 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 any additional content that supports their learning.

As this module progresses, the strategies will change to best support a diverse learning environment. Initially, the module will start with a heavier reliance on engaging tutor-led lectures, demonstrations, and workshops to ensure that the students get the relevant threshold concepts. As the module continues experiential and peer learning strategies will be encouraged as the students' progress with their coursework. Sessions will shift to more tutorial-based sessions to focus of formative feedback for individual student achievement.

Indicative Syllabus Outline

The syllabus will reflect contemporary software and practices and may change based on relevant concepts however and indicative outline could be as follows:

- 3D character production pipeline
- Poly Modelling & Sculpting
- UV Mapping, Painting & Texturing
- Rigging & Weight Painting
- Character Animation
- Unreal Implementation
- In game interaction & Logic

Indicative Bibliography:

Essential Reads

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

Other indicative reading

3dtotal Publishing, (2017), *Beginner's Guide to ZBrush,* Worcester: 3dtotal Publishing.

Briggs, C. (2021), *An Essential Introduction to Maya Character Rigging*, Florida: CRC Press.

Legaspi, C. (2017), *Anatomy for 3D artists: The Essential Guide for CG professionals,* Worcester: 3DTotal Publishing.

Romero, M.F., Sewell, B., Cataldi, L. (2022), *Blueprints visual scripting for Unreal Engine 5*, Third Edition, Birmingham: Packt Publishing.