

Module specification

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Module Code	GME516
Module Title	Character Rigging and Animation
Level	5
Credit value	20
Faculty	FACE
HECoS Code	100363
Cost Code	GAGM
Pre-requisite module	N/A

Programmes in which module to be offered

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

Breakdown of module hours

Learning and teaching hours	30 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	30 hrs
Placement hours	0 hrs
Guided independent study hours	170 hrs
Module duration (Total hours)	200 hrs

Module aims

This module aims to do the following:

- Revisit character rigging techniques and explore further tools for more advanced implementations.
- Explore contemporary examples of character animation to generate insight to enhance future practice.
- Explore fundamental animation sets for characters in games.
- Produce a high-quality animation showreel demonstrate game character portfolio development.

Module Learning Outcomes

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

1	Analyse contemporary examples of character animation and relate them to viable animation strategies for game products.
2	Identify viable use cases of motion capture techniques as part of the contemporary animation workflow.
3	Demonstrate effective use of rigging strategies using hierarchies, constraints and deformation techniques.
4	Design a finite set of game-ready character animations.
5	Assemble rigging and animation work into an industry-facing showreel.

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.

Assessment 1:

Assessment 1 represents an analysis of an existing contemporary game animation/character work in the form of a case study. This case study indicatively could use the format of a short video presentation to demonstrate examples of good or poor practice in a particular game product, with meaningful outcomes for future practice.

Assessment 2:

Assessment 2 will represent the bulk of the module work and will represent a full animation workflow. Students should start this module with a pre-produced character asset and will be tasked with using traditional rigging techniques to ensure smooth animation opportunities. Students will then be required to create an appropriately scoped set of character animations (indicatively this could be idle, walk, run, dodge, etc). Finally, students will put together a clean and clear animation showreel of their work.

Assessment number	Learning Outcomes to be met	Type of assessment	Duration/Word Count	Weighting (%)	Alternative assessment, if applicable
1	1, 2	Coursework	N/A	30%	N/A
2	3, 4, 5	Portfolio	N/A	70%	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 produce character rigging and animation sets. 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, experiential and peer learning strategies will be encouraged as the students' progress with their coursework. Class time will shift to more student-led portfolio 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:

- 3D Character Animation Pipeline
- Rigging Strategies
- Hierarchies, Constraints & Deformation
- Weight Painting Tools & Techniques
- Key Framed Animation Strategies
- Motion Capture Opportunities
- Physics Driven Animation
- Performance Capture
- Animation Showreel Production

Indicative Bibliography

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

Essential Reads:

O’Hailey, T. (2024), *Rig it Right! Maya Animation Rigging Concepts*, Third Edition, Boca Raton: CRC Press.

Other indicative reading:

Annand, J. (2025), *Animation Craft: For 3D and 2D Animators*, Boca Raton: CRC Press.

Beane, A. (2012), *3D Animation Essentials*, Chichester: John Wiley & Sons.

Bjellvåg, T. (2027), *3D Game Animation with Unreal Engine 5: Uncover Real-Time Animation Techniques for Modern Games and Interactive Experiences*, Birmingham: Packt Publishing.

Administrative Information

For office use only	
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Date and details of revision	
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