

Module specification

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Module Code	GME416
Module Title	Character Design and Digital Sculpting
Level	4
Credit value	20
Faculty	FACE
HECoS Code	101019
Cost Code	GAGM
Pre-requisite module	None

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	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 industry standard workflow techniques for organic modelling and sculpting.
- Explore industry standard character art software packages and how they relate to contemporary industry practice.
- Develop a game character from initial concept through to a polished, high-fidelity detailed sculpt.
- Produce a small-scale character to demonstrate portfolio development.

Module Learning Outcomes

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

1	Identify form, proportion, and structure for character design and human anatomy.
2	Apply contemporary 3D sculpting tools and techniques to develop a coherent 3D sculpt.
3	Relate character design elements to contemporary and viable technological implementations and fitness-for-purpose.
4	Demonstrate a character development workflow from initial concept and 2D turnarounds through to a high-resolution digital sculpt.

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.

The assessment will take the form of a portfolio of work which represents a complete workflow from character concept through to high resolution 3D sculpts. Students will be expected to produce a workflow document which breaks down each milestone of the production process and evidence of good workflow practices. This documentation will indicatively include elements such as pre-production, 2D turnarounds, 3D geometry and sculpting techniques. To finalise the assessment process, students will demonstrate their character as finalised portfolio piece.

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 produce 3D game characters and sculpts. 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 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:

- Concepting, Mood Boards and Turnarounds
- Colour & Shape Theory
- Poly Modelling & Sculpting Techniques
- Anatomy & Expression
- Zbrush & Sculpting Software
- Custom Brushes & Tools
- Zbrush Rendering Techniques

Indicative Bibliography

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

Essential Reads:

Kutschera, L. (2024), *Sculpting in ZBrush Made Simple: Explore Powerful Modeling and Character Creation Techniques Used for VFX, Games, and 3D Printing*, Birmingham: Packt Publishing.

Other indicative reading:

3dtotal Publishing (2020), *Art Fundamentals 2nd Edition: Light, Shape, Color, Perspective, Depth, Composition, Anatomy*, Worcester: 3dtotal Publishing.

Lauricella, M. (2018), *Morpho: Anatomy for Artists*, San Rafael: Rocky Nook.

Tickoo, S. (2025), *MAXON ZBrush 2024: A Tutorial Approach*, Indiana: CADCIM Technologies.

Administrative Information

For office use only	
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