

MODULE DESCRIPTOR

Module Title

Experimental Game Mechanics

Reference	CM2119	Version	1
Created	October 2023	SCQF Level	SCQF 8
Approved	August 2017	SCQF Points	15
Amended	March 2021	ECTS Points	7.5

Aims of Module

To provide the student with the ability to understand the fundamental concepts of games programming and associated techniques in relation to prototyping and necessary/useful game mechanics.

Learning Outcomes for Module

On completion of this module, students are expected to be able to:

- 1 Practice how to effectively use a games development environment to produce a prototype.
- 2 Combine effective game design techniques to enrich the gameplay experience.
- 3 Adapt software development tools to support interactive features and key mechanics within the game setting.
- 4 Rate appropriate testing methods and strategies in order to evaluate the end artefact.

Indicative Module Content

Overview of game objects, scenes, cameras, physics, textures and materials, game logic, game mechanics and architecture, hierarchy, game interface design. Gameplay loop and strategies to design exit points.

Module Delivery

Key concepts are introduced and illustrated through lectures. In the labs the students will progress through a sequence of practical exercises to explore concepts and develop sufficient knowledge of game mechanics, and overall design and development processes in an appropriate environment to exhibit iterative development in relation to games prototyping.

Indicative Student Workload

	Full Time	Part Time
Contact Hours	30	N/A
Non-Contact Hours	120	N/A
Placement/Work-Based Learning Experience [Notional] Hours	N/A	N/A
TOTAL	150	N/A
<i>Actual Placement hours for professional, statutory or regulatory body</i>		

ASSESSMENT PLAN

If a major/minor model is used and box is ticked, % weightings below are indicative only.

Component 1

Type: Coursework Weighting: 100% Outcomes Assessed: 1, 2, 3, 4

Description: Coursework involving the design and development of an iterative games prototype.

MODULE PERFORMANCE DESCRIPTOR**Explanatory Text**

The calculation of the overall grade for this module is based on 100% weighting of C1. An overall minimum grade of D is required to pass the module.

Module Grade	Minimum Requirements to achieve Module Grade:
A	The student needs to receive an A in C1
B	The student needs to receive a B in C1
C	The student needs to receive a C in C1
D	The student needs to receive a D in C1
E	The student needs to receive an E in C1
F	The student needs to receive an F in C1
NS	Non-submission of work by published deadline or non-attendance for examination

Module Requirements

Prerequisites for Module	None.
Corequisites for module	None.
Precluded Modules	None.

INDICATIVE BIBLIOGRAPHY

- 1 Unity. Unity Scripting Reference. <https://docs.unity3d.com/ScriptReference/index.html>;
- 2 Game Programming with Unity and C#: A Complete Beginner's Guide. Casey Hardman, 2020
- 3 Unity in Action, Second Edition: Multiplatform game development in C#. Joseph Hocking, 2018.