

## MODULE DESCRIPTOR

### Module Title

Games Prototyping

Reference	CM3133	Version	1
Created	February 2022	SCQF Level	SCQF 9
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.

### Learning Outcomes for Module

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

- 1 Understand how to effectively use a games development environment to produce a prototype.
- 2 Demonstrate effective game design techniques to add to the gameplay experience.
- 3 Make effective use of software development tools to add interactive features and functionalities within the game.
- 4 Utilise 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 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 exercises to develop sufficient knowledge of games design and development in an appropriate environment to complete the practical implementation of a number of prototypes.

### 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 design and development of game prototypes.

**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:
<b>A</b>	The student needs to receive an A in C1
<b>B</b>	The student needs to receive a B in C1
<b>C</b>	The student needs to receive a C in C1
<b>D</b>	The student needs to receive a D in C1
<b>E</b>	The student needs to receive an E in C1
<b>F</b>	The student needs to receive an F in C1
<b>NS</b>	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.