

## MODULE DESCRIPTOR

### Module Title

Games Development

Reference	CM4114	Version	4
Created	September 2023	SCQF Level	SCQF 10
Approved	August 2017	SCQF Points	15
Amended	April 2024	ECTS Points	7.5

### Aims of Module

To provide the student with the knowledge and skills needed to build interactive games using a modern game development framework, while developing an understanding of player expectations, the playtesting of video games, and the accessibility requirements of modern entertainment titles.

### Learning Outcomes for Module

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

- 1 Operate the facilities available in a suitable game development framework to develop interactive gaming experiences.
- 2 Reconcile appropriate modern technologies for scene and game logic representation.
- 3 Execute game deployment techniques to create a distributable file for multiple platforms.
- 4 Develop and test a video game against user expectations.
- 5 Communicate a critical understanding of accessibility issues with respect to the game design and development.

### Indicative Module Content

Overview of 3D representation of game objects, scenes, cameras, physics, textures and materials, sound, game logic, persistence, multi-platform deployment, game interface design, animation, game design, accessibility.

### Module Delivery

Key concepts and ideas are introduced in lectures. In the lab sessions, the students will develop and implement practical aspects of game development in a modern development environment. The labs will involve use of existing IDE and GUI tools for the development, deployment and testing of game applications.

**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, 5

Description: This is a coursework which involves the design, development and testing of a game-based solution.

**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 achieve an A in C1.
<b>B</b>	The student needs to achieve a B in C1.
<b>C</b>	The student needs to achieve a C in C1.
<b>D</b>	The student needs to achieve a D in C1.
<b>E</b>	The student needs to achieve an E in C1.
<b>F</b>	The student needs to achieve an F in C1.
<b>NS</b>	Non-submission of work by published deadline or non-attendance for examination

**Module Requirements**

Prerequisites for Module The student should have previous experience of using an object oriented programming language and/or appropriate graphical design module.

Corequisites for module None.

Precluded Modules None.

**INDICATIVE BIBLIOGRAPHY**

- 1 Borromeo, N., 2020. Hands-On Unity 2020 Game Development. Packt Publishing.
- 2 Ferrone, H., 2020. Learning C# By Developing Games With Unity 2020 - Fifth Edition. Packt Publishing; 5th Revised edition
- 3 Doran, J., 2020. Unity 2020 Mobile Game Development - Second Edition. [S.l.]: Packt Publishing.
- 4 Felicia, P., 2019. Unity From Zero To Proficiency (Foundations). Independently published.
- 5 Gilbert, R., 2019. INCLUSIVE DESIGN FOR A DIGITAL WORLD. 1st ed. Apress; 1st ed. edition.