Module Definition Form (MDF)

Module code: MOD011415	**Version:** 1 **Date Amended:** 15/Dec/2025

1. Module Title
Game Engines for Designers

2a. Module Leader
Matthew Jones

2b. School
Cambridge School of the Creative Industries

2c. Faculty
Faculty of Arts, Humanities, Education and Social Sciences

3a. Level
4

3b. Module Type
Standard (fine graded)

4a. Credits
30

4b. Study Hours
300

5. Restrictions

Type	Module Code	Module Name	Condition
Pre-requisites:	None		
Co-requisites:	None		
Exclusions:	None		
Courses to which this module is restricted:	BA (Hons) Computer Games Design		

LEARNING, TEACHING AND ASSESSMENT INFORMATION

6a. Module Description

This module is an introduction to game engines and the visual scripting languages used within them to develop a video game. Across the games industry there are many development environments within which games and interactive experiences can be developed. A game engine is the primary environment used and therefore a working knowledge of this software is essential for employment in the industry. You will gain an understanding of the common and transferable concepts within game engines that allow a design idea to be developed into a digital prototype. This will give you the ability to adapt the skills that you have gained with one development tool to another, as many game companies use their own proprietary toolsets. You will also learn the visual scripting languages used within game engines to create the functional game mechanics required to achieve engaging gameplay.

6b. Outline Content

- The core features of commercial game engines
- Comparison of current generation game engines
- Operating the main functionality of a commercial game engine
- Using visual scripting languages within a game engine
- Developing transferable skills to adapt to other game engines
- Developing game mechanics within a commercial game engine

6c. Key Texts/Literature

The reading list to support this module is available at: https://readinglists.aru.ac.uk/

6d. Specialist Learning Resources

Students will have access to specialist game development labs, with the latest industry standard game development tools such as game engines, 3D modelling tools, graphics packages and other suitable software. The students will have access where appropriate to a variety of specialised game development hardware such as joysticks, virtual reality equipment, graphics tablets and mobile devices. Face-to-face learning activities will be held in appropriate rooms, including gaming labs and active learning rooms when designated. This is in addition to access to the internet and Anglia Ruskin University LMS.

7. Learning Outcomes (threshold standards)

No.	Type	On successful completion of this module the student will be expected to be able to:
1	Knowledge and Understanding	Access and operate a range of key features within a commercial game engine to create a simple video game artefact.
2	Knowledge and Understanding	Select and use appropriate techniques and methodologies to design the visual scripting required for a simple video game artefact.
3	Intellectual, practical, affective and transferrable skills	Assemble optimised, expandable, and maintainable visual scripts that allow engaging game mechanics.
4	Intellectual, practical, affective and transferrable skills	Develop and evaluate variants of existing video games from different genres, including their game mechanics and gameplay.

8a. Module Occurrence to which this MDF Refers				
Year	**Occurrence**	**Period**	**Location**	**Mode of Delivery**
2026/7	ZZF	Template For Face To Face Learning Delivery		Face to Face

8b. Learning Activities for the above Module Occurrence			
Learning Activities	**Hours**	**Learning Outcomes**	**Details of Duration, frequency and other comments**
Lectures	24	1-4	1 hr Lecture per week
Other teacher managed learning	48	1-4	2 hr Workshop/Supervision per week
Student managed learning	228	1-4	Self-directed learning and development
TOTAL:	300		

9. Assessment for the above Module Occurrence

The assessment for some modules includes a presentation (see below for details on how this particular module is assessed). We recognise that presenting, especially to a large group, can cause significant anxiety or distress for some students. If this may affect you, please contact your Module Leader or the Disability and Neurodiversity Service as early as possible. We will work with you to consider appropriate reasonable adjustments. Depending on your individual needs, these might include, for example, presenting to a smaller group or presenting only to a member of academic staff.

Assessment No.	Assessment Method	Learning Outcomes	Weighting (%)	Fine Grade or Pass/Fail	Qualifying Mark (%)
010	Practical	1-3	50 (%)	Fine Grade	30 (%)
50hr project to create a series of small game artefacts					

Assessment No.	Assessment Method	Learning Outcomes	Weighting (%)	Fine Grade or Pass/Fail	Qualifying Mark (%)
011	Practical	1-4	50 (%)	Fine Grade	30 (%)
50hr project to develop a video game artefact					

In order to pass this module, students are required to achieve an overall mark of 40% (for modules at levels 3, 4, 5 and 6) or 50% (for modules at level 7*).

In addition, students are required to:
(a) achieve the qualifying mark for each element of fine graded assessment as specified above
(b) pass any pass/fail elements

[* the pass mark of 50% applies for all module occurrences from the academic year 2024/25 – see Section 3a of this MDF to check the level of the module and Section 8a of this MDF to check the academic year]