

Module code: MOD004623		Version: 1 Date Amended: 21/Apr/2015	
------------------------	--	---	--

1. Module Title	
Games Programming	

2a. Module Leader	
Lee Cheng	

2b. School	
Cambridge School of the Creative Industries	

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

3a. Level	
7	

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:	MSc Computer Games Development (Computing)		

LEARNING, TEACHING AND ASSESSMENT INFORMATION

6a. Module Description

Prior experience of object oriented programming is essential and it will be assumed for all students taking this module. Modern games are built of many specialised components; graphics, artificial intelligence, game logic, network communications, data storage, tools development and more. It is near impossible to be a specialist in all of these areas so an aspiring games programmer needs to be able to focus on one area and become an expert on that topic. Individual students taking this module will start with a range of prior experience and will bring a wide range of desired specialisations. This module allows students to negotiate a structured set of specific objectives which are to be achieved within the module. Students will be encouraged to take responsibility for their own learning and examples of innovative approaches to learning or artefact production will be encouraged. The students following this module will discuss with their allocated tutor the programming topic of interest and their aspirations for learning. The tutor will explain the requirements of the module and together with the student an appropriate set of objective and assessment criteria will be agreed. The student will present a plan of activities to achieve the agreed objectives which will be agreed with the tutor. The student will then be expected to carry out the plan. The student will be expected to submit the agreed work in the agreed format at the end of the module period. These deliverables will be assessed against the objectives and assessment criteria agreed at the start of the module. The agreed objectives to be undertaken by the student will normally require the student to demonstrate the generic learning outcomes expected at this level and the size of the module.

6b. Outline Content

- * Expectations and responsibilities in the module.
- * Reflect and evaluate current knowledge in the proposed topic area.
- * Negotiation on topic area, scope, learning objectives and deliverables.
- * Research and reporting techniques appropriate for individual students.
- * Techniques for self-appraisal and self-milestone setting. Review of progress

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 a specialist game development labs, with the latest industry standard game development tools such as Unity 3D, Unreal Engine, Cry Engine, Maya, 3D Studio Max, ZBrush, Mudbox & Visual Studio. Students will have access to the VLE where online discussions, support and document access will be provided. Access to the Library search services will also be an important resource.

The students will have access to a variety of hardware to supplement their studies including USB phidget interface devices, Oculus Rift virtual reality headsets, a range of tablets devices, surround sound headphones and various game controllers.

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	Negotiate and plan a programme of learning in a game related area of programming (AI, graphics, gameplay, etc.).
2	Knowledge and Understanding	Demonstrate an advanced understanding of a technical aspect of game development.
3	Intellectual, practical, affective and transferrable skills	Work with minimal supervision to complete planned learning.
4	Intellectual, practical, affective and transferrable skills	Reflect upon the quality of the work produced and the learning experience.

8a. Module Occurrence to which this MDF Refers				
Year	Occurrence	Period	Location	Mode of Delivery
2025/6	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	12	1,2,4	1 hour of lectures per week for 12 weeks
Other teacher managed learning	24	1-4	2 hours of practical per week for 12 weeks
Student managed learning	264	1-4	Self-directed study.
TOTAL:	300		

9. Assessment for the above Module Occurrence					
Assessment No.	Assessment Method	Learning Outcomes	Weighting (%)	Fine Grade or Pass/Fail	Qualifying Mark (%)
010	Coursework	1-4	20 (%)	Fine Grade	40 (%)
1000 word proposal.					
Assessment No.	Assessment Method	Learning Outcomes	Weighting (%)	Fine Grade or Pass/Fail	Qualifying Mark (%)
011	Coursework	1-4	80 (%)	Fine Grade	40 (%)
5000 word (equivalent) computer game demo or equivalent artefact and report.					

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]