

Module code: MOD003216	Version: 1 Date Amended: 15/Dec/2011
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1. Module Title
Quality Assurance in Game Development

2a. Module Leader
Ian Brown

2b. Department
Department of Computing and Technology

2c. Faculty
Faculty of Science and Technology

3a. Level
4

3b. Module Type
Standard (fine graded)

4a. Credits
15

4b. Study Hours
150

5. Restrictions			
Type	Module Code	Module Name	Condition
Pre-requisites:	None		
Co-requisites:	None		
Exclusions:	None		
Courses to which this module is restricted:	None		

LEARNING, TEACHING AND ASSESSMENT INFORMATION

6a. Module Description

Creating video games is an extremely complex task requiring the co-operation of gameplay programmers, graphics programmers, AI programmers, artists, modellers, animators, and many other professions. Integrating assets from all these inter-dependent fields into an environment in which players can interact in unpredictable ways, inevitably creates a situation where errors or design flaws are discovered. The first task many players undertake when they first purchase a game is not to play it, but to download a patch to fix all the errors which were discovered in between sending the game to the publishers and for that game to reach the high street shelves. The games industry has, partly due to these challenges, gained a reputation for releasing commercial products which still contain many unresolved, or undiscovered errors. Errors can also be costly during the development process. Errors or design flaws introduced early on in development can prove extremely expensive to rectify when they are finally discovered later in development. All major game developers and publishers have specialised Quality Assurance (QA) teams who spend many hours checking all aspects of the game to discover as many errors as possible prior to release. QA itself is often undervalued and less well recognised, but is in fact a vital part of the development process to ensure players have an enjoyable experience. This module seeks to introduce students to the importance of Quality Assurance within the development process of games. Student will learn how to test games effectively and learn how to communicate issues clearly and in a way that those errors can be reproduced by other developers. Students will also learn the how to use common bug tracking software and the common terminology used within QA departments. The assessment for this module will require students to develop and implement a test strategy, for a video game.

6b. Outline Content

- Using bug tracking software to record errors
- Planning a test regime
- Documenting the steps to reproduce an error
- Considering 'why' an error may be occurring, in order to assist the developer in resolving the error
- Severity vs Priority

6c. Key Texts/Literature

The reading list to support this module is available at: <http://readinglists.anglia.ac.uk/modules/mod003216>

6d. Specialist Learning Resources

Students will have access to a specialist game development lab, with the latest industry standard game development tools such as the BugZilla, Unreal Engine, Cry Engine, Unity 3D, 3D Studio Max, 3D monitors and glasses. Students will also have access to a motion capture suit, video and audio recording facilities and a range of electronic interface devices for use with the game engines.

Access to the internet and Anglia Ruskin University VLE.

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	Understand the technical terminology used within the quality assurance process
2	Knowledge and Understanding	Understand how to plan a testing strategy which works efficiently within a typical production pipeline in the video games industry
3	Intellectual, practical, affective and transferrable skills	Use common bug tracking software to record detailed reports and manage the progress of issues
4	Intellectual, practical, affective and transferrable skills	Identify issues and clearly document the steps to reproduce those issues

8a. Module Occurrence to which this MDF Refers				
Year	Occurrence	Period	Location	Mode of Delivery
2017/8	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	12 x 1hr Lecture for weeks 1 – 12
Other teacher managed learning	24	3,4	Practical 2 hr x 12 for weeks 1 – 12
Student managed learning	114	1-4	Further reading and practice with commercial game engines.
TOTAL:	150		

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	100 (%)	Fine Grade	30 (%)
Completed Test Strategy, 3000 words equivalence					

In order to pass this module, students are required to achieve an overall mark of 40%.

In addition, students are required to:

(a) achieve the qualifying mark for each element of fine graded assessment of as specified above

(b) pass any pass/fail elements