

<b>Module code: MOD002582</b>	<b>Version: 2 Date Amended: 03/Dec/2015</b>
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<b>1. Module Title</b>
Introduction to Computer Gaming

<b>2a. Module Leader</b>
Senir Dinar

<b>2b. Department</b>
Department of Computing and Technology

<b>2c. Faculty</b>
Faculty of Science and Technology

<b>3a. Level</b>
4

<b>3b. Module Type</b>
Standard (fine graded)

<b>4a. Credits</b>
30

<b>4b. Study Hours</b>
300

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

## LEARNING, TEACHING AND ASSESSMENT INFORMATION

### 6a. Module Description

This module is an introduction to the study of gaming and development of computer games. The module uses standard computer platforms suitably equipped with 2D and 3D games development environments in which students implement a complete game. The teaching and learning programme of the module covers two separate, but mutually dependent strands of study and activity. A theoretically-based strand of study looks at the fundamentals of game analysis, design, the requirements of interaction and an outline of game theory with its ideas of states, goals and strategies. These ideas are foundational for both the analysis and design of games and will recur throughout subsequent modules. Alongside this analysis of game genre, forms, their historical and cultural significance provides an informed understanding of the user response to games. The practical strand of activity introduces the student to implementing a game using current specialist game development technologies. This practical strand helps (in concert with other modules not specific to gaming) to develop the fundamental skills of computer games development. These strands come together in the assignment for the module, a working game designed and built by the student. This will require the student to apply knowledge gained from the theoretical aspects of the module to survey and analyse existing games, to produce a theoretically well founded games design, to plan the practical implementation of the game in a suitable technology, to carry out that implementation and to test and evaluate the result. The final game implementation will also include a design document detailing how and why the game has been designed in the specific way. The student will be expected to demonstrate application of the theoretical concepts within the documentation and final game. The skills acquired in this module may be enhanced through further study by selecting the Level 5 module Games Design And Development.

### 6b. Outline Content

- Game theory; categories of games - 1, 2, n player, competitive and cooperative, perfect and imperfect information; representation of games - states, goal states, transitions, etc.; strategies algorithms and heuristics; multi-player and single-player games - turn taking and interaction. - The history of games; categories of games and their development. - The place of games in contemporary culture: entertainment and education. Fundamentals of user interaction and user response to games: sense-making and immersion. - Technologies to support games development: visual design and the scripting of actions. - Game development tools; 3D games development environments - level design, games engines and scripting. - Games design cycle: competitor survey, game theory and design, choice/construction of engine, level design, sound design, scripting, testing, evaluation. - Documenting a game design: underlying game logic, storyboards and visual representation, sound script, etc.

### 6c. Key Texts/Literature

The reading list to support this module is available at: <http://readinglists.anglia.ac.uk/modules/mod002582>

### 6d. Specialist Learning Resources

Access to a full suite of current multimedia hardware and software including vector-based multimedia development packages. 2D animation environment with scripting language; 3D games development environment with scripting language.

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	Apply the fundamentals of game theory to the analysis and design of simple entertainment and educational games.
2	Knowledge and Understanding	Apply a classification scheme to the diverse range of games which exist in contemporary popular culture.
3	Knowledge and Understanding	Devise and implement an appropriate testing procedure for the development cycle of a game.
4	Intellectual, practical, affective and transferrable skills	Design a simple game with a well-structured architecture, separating different aspects of design and addressing them with appropriate technologies.
5	Intellectual, practical, affective and transferrable skills	Implement a simple game in a 2D or 3D graphical environment, using scripting languages.

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	1-5	1 hr lecture per week
Other teacher managed learning	36	1-5	3 hrs combining tutorial and workshops per week
Student managed learning	252	1-5	Self directed study and assessment development
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	1-5	100 (%)	Fine Grade	30 (%)
<b>Completed Game and Design Documentation equivalent to 6000 words.</b>					

**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**