UNIVERSITY of BRADFORD

Module Descriptor

Module Details	
Module Title:	Introduction to Computer Programming for Games
Module Code:	GAV4005-B
Academic Year:	2019-20
Credit Rating:	20
School:	Department of Media Design and Technology
Subject Area:	Games, Animation and Visual Effects
FHEQ Level:	FHEQ Level 4
Pre-requisites:	
Co-requisites:	

Contact Hours	
Type	**Hours**
Lectures	24
Tutorials	24
Laboratory	24
Directed Study	128

Availability	
Occurrence	**Location / Period**
BDA	University of Bradford / Semester 1 (Sep - Jan)

Module Aims

To provide an introduction to computer programming with particular emphasis on program design and implementation.

Outline Syllabus

Software and program design: algorithms, pseudo code, loops and branches, pointer and array concepts. Programming development environments: entering, editing, compiling, linking, debugging and flow control. Games programming languages and API's: for examples XNA, Unity or similar, Scripting languages, data types, expressions, operators, control structures, pointers, arrays, structures, objects and classes.

Learning Outcomes	
1	gain the knowledge and understanding of both the theoretical and practical aspects of constructing high level computer games programs; evaluate a range of computer programming approaches to identify the most appropriate solution to a given problem.
2	deploy a range of windows based computer programming techniques using industry standard computer languages and games API's.
3	demonstrate skills in systematic problem solving, data interpretation, general communication skills and the ability to use a PC software development environment.

Learning, Teaching and Assessment Strategy

Teaching and learning on this module will comprise lectures, practical lab sessions and problem classes. The lectures will cover the theoretical foundations of computer programming with the specific application to the production and development of computer games; practical work will give opportunity for hands-on lab based computer exercises; problem classes will provide opportunity for practise and further clarification of particular elements of the theoretical and practical aspects of the module. The mid-term practical exercise will measure students' progress and allow for formative feedback. Supplementary assessment is to repair deficiencies in original submission.

Mode of Assessment

Type	Method	Description	Length	Weighting
Summative	Coursework	Formative coursework comprising a programming exercise	0 hours	30%
Summative	Coursework	Game programming exercise	0 hours	70%

Reading List

To access the reading list for this module, please visit https://bradford.rl.talis.com/index.html.

Please note:

This module descriptor has been published in advance of the academic year to which it applies. Every effort has been made to ensure that the information is accurate at the time of publication, but minor changes may occur given the interval between publishing and commencement of teaching. Upon commencement of the module, students will receive a handbook with further detail about the module and any changes will be discussed and/or communicated at this point.