

Liverpool John Moores University

Title: GAME CONSOLE TECHNOLOGIES AND PROGRAMMING
Status: Definitive
Code: **6054COMP** (117466)
Version Start Date: 01-08-2019
Owning School/Faculty: Computer Science
Teaching School/Faculty: Computer Science

Team	Leader
Chris Carter	Y

Academic Level: FHEQ6
Credit Value: 24
Total Delivered Hours: 74
Total Learning Hours: 240
Private Study: 166

Delivery Options

Course typically offered: Standard Year Long

Component	Contact Hours
Lecture	24
Workshop	48

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Technology	AS1	Design, implementation and evaluation of interactive graphical application on game consoles. Group based and must include peer assessment report.	50	
Exam	AS1	Examination.	50	2

Aims

*To provide students with sound knowledge of the technology used in game consoles.
To explain the technology used in game consoles in the context of game development.*

*To develop student's programming skills in game consoles.
To provide students with practical experience in the programming of game consoles.*

Learning Outcomes

After completing the module the student should be able to:

- 1 Critically evaluate the evolution of game console hardware and architecture.
- 2 Explain the hardware architecture of a modern game console.
- 3 Critically evaluate the significance of the technology used in game consoles in the context of game development.
- 4 Develop interactive graphical applications on a game console.
- 5 Critically analyse and solve game software development problems on a games console.

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

Interactive graphical app	4	5	
Examination	1	2	3

Outline Syllabus

*History of game consoles
Evolution of hardware and architecture.
Hardware architecture of modern game consoles
Input devices and peripherals.
Software development API and SDK
Introduction to programming on game consoles
Handling input from game controllers
Graphics programming
Sound programming
Optimization techniques
Platform independence in consoles game development.*

Learning Activities

Lectures incorporating demonstrations will be followed by tutor-led practical sessions. These will be supported by practical hands-on work in the laboratory.

Notes

This module will introduce students to the principles and practice of game console programming. By using game console platforms, such as Microsoft Xbox 360, Nintendo GameCube and Sony Playstation 2, and the appropriate software

development kit and API to demonstrate a number of technologies that are available to game developers and how to utilise them.