

Liverpool John Moores University

Title: GAME CONSOLE TECHNOLOGIES AND PROGRAMMING
Status: Definitive
Code: **6054BECK** (118388)
Version Start Date: 01-08-2011

Owning School/Faculty: Computing and Mathematical Sciences
Teaching School/Faculty: Beckett College London

Team	Leader
Sud Sudirman	Y

Academic Level: FHEQ6
Credit Value: 24.00
Total Delivered Hours: 74.00
Total Learning Hours: 240
Private Study: 166

Delivery Options

Course typically offered: Standard Year Long

Component	Contact Hours
Lecture	24.000
Workshop	48.000

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	AS1	Examination.	50.0	2.00
Technology	AS1	Design, implementation and evaluation of interactive graphical application on game consoles. Group based and must include peer assessment report.	50.0	

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:

Examination	1	2	3
Interactive graphical app	4	5	

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.

References

Course Material	Book
Author	Cawood, S. and McGee, P.

Publishing Year	2009
Title	Microsoft ® XNA Game Studio Creators Guide
Subtitle	
Edition	2nd Edition
Publisher	McGraw-Hill Osborne Media
ISBN	0071614060

Course Material	Book
Author	Gregory, J.
Publishing Year	2009
Title	Game Engine Architecture
Subtitle	
Edition	
Publisher	A.K. Peters Ltd.
ISBN	1568814135

Course Material	Book
Author	Rabin, S.
Publishing Year	2005
Title	Introduction to Game Development
Subtitle	
Edition	
Publisher	Charles River Media
ISBN	1584503777

Course Material	Book
Author	Matthew, N. and Stones, R.
Publishing Year	2007
Title	Beginning Linux Programming
Subtitle	
Edition	
Publisher	John Wiley and Sons
ISBN	0470147628

Course Material	Website
Author	
Publishing Year	
Title	www.ps2dev.org
Subtitle	
Edition	
Publisher	
ISBN	

Course Material	Website
Author	
Publishing Year	
Title	http://www.snsys.com/

Subtitle	
Edition	
Publisher	
ISBN	

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.