

Liverpool John Moores University

Title: ONLINE GAMING
Status: Definitive
Code: **7027COMP** (103286)
Version Start Date: 01-08-2011

Owning School/Faculty: Computing and Mathematical Sciences
Teaching School/Faculty: Computing and Mathematical Sciences

Team	Leader
Robert Askwith	Y

Academic Level: FHEQ7
Credit Value: 15.00
Total Delivered Hours: 36.00
Total Learning Hours: 150
Private Study: 114

Delivery Options

Course typically offered: Semester 2

Component	Contact Hours
Lecture	12.000
Practical	12.000
Tutorial	12.000

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Essay	AS1	Individual literature survey on recent papers, and writing up an essay on online gaming issues.	40.0	
Technology	AS2	Individual development project involving online gaming design, architecture and algorithms.	60.0	

Aims

*Develop understanding in design and development issues involved in online games.
Perform critical review of literature relating to online games technologies.*

Learning Outcomes

After completing the module the student should be able to:

- 1 Display an advanced knowledge of design issues involved in online gaming network support
- 2 Apply knowledge of online gaming databases and information handling
- 3 Display an advanced knowledge in online gaming interactivity
- 4 Critically evaluate research solutions for online gaming techniques

Learning Outcomes of Assessments

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

Literature survey	1	2	4
Development project	1	3	

Outline Syllabus

Introduction; Multiplayer Online Games as Media: History; Types; Online Games for the Mass Market; Online Games for the Hardcore Gamer; Issues and opportunities in online games; General Design; Networking Game Development: Architecture (peer-to-peer, client/server, floating server, (multiple)-Servers Network), Issues (latency, reliability, Bandwidth, Security, Scalability), Tools (protocols, APIs) and Techniques (Dead-Reckoning, Interest Management, etc...); Interactivity Design: The Importance of Interactivity; Interactivity for Multiplayer Online Games; Future trends: Wireless, Broadband.

Learning Activities

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

References

Course Material	Book
Author	Friedl, M.
Publishing Year	2002
Title	Online Game Interactivity Theory
Subtitle	
Edition	
Publisher	Charles River Media
ISBN	1584502150

Course Material	Book
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Author	Hall, R.
Publishing Year	2008
Title	Game Development Essentials: Online Game Development
Subtitle	
Edition	
Publisher	Delmar
ISBN	1418052671

Course Material	Book
Author	Kurose, J.F. & Ross, K.W.
Publishing Year	2008
Title	Computer Networking: A Top Down Approach
Subtitle	
Edition	4th
Publisher	Addison-Wesley
ISBN	0321497708

Course Material	Book
Author	Mulligan, J., and Patrovsky, B.
Publishing Year	2003
Title	Developing Online Games: An Insiders Guide
Subtitle	
Edition	
Publisher	New Riders
ISBN	1592730000

Notes

This module will explore the various design, technical and interactivity issues involved in multiplayer games. By understanding these issues, developers can identify the factors that affect them, and learn which architecture, techniques and methods to use in online games design and implementation.