

Liverpool John Moores University

Title: CLOUD COMPUTING
Status: Definitive
Code: **6015ONLINE** (117881)
Version Start Date: 01-08-2011

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

Team	Leader
Martin Randles	Y
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Academic Level: FHEQ6 **Credit Value:** 12.00 **Total Delivered Hours:** 38.00
Total Learning Hours: 120 **Private Study:** 82

Delivery Options

Course typically offered: Runs Twice - S1 & S2

Component	Contact Hours
Lecture	12.000
Online	12.000
Tutorial	12.000

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	AS1	Investigation concerning data centre design.	25.0	
Exam	AS2	Examination.	75.0	2.00

Aims

To appreciate the relationship with and variation to the internet and corporate network and in so doing, understand the potential benefits to businesses and consumers.

To investigate the hardware and software architecture of Cloud Computing and understand how virtualisation is key to a successful Cloud Computing solution.

Learning Outcomes

After completing the module the student should be able to:

- 1 Describe the hardware and software concepts and architecture of Cloud Computing.
- 2 Contrast the key technical and commercial issues concerning Cloud Computing versus traditional software models.
- 3 Recognize the importance of virtualisation technology in support of Cloud Computing.
- 4 Specify and design Cloud Computing capable data centres.

Learning Outcomes of Assessments

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

Data centre design	3	4
Examination	1	2

Outline Syllabus

Overview of the Traditional Software Models.

Internet Infrastructure.

The Data Centre.

Virtualisation Technology.

Rise of Cloud Computing and Virtualisation

SaaS, PaaS & IaaS subsets within Cloud Computing.

Case Study - Benefits to Business and Consumers.

Data Centre Design Considerations.

Windows Azure Platform - Case Study.

Linux - Case Study.

Learning Activities

Learning activities will be through recorded lectures and tutorials where students will be encouraged to ask questions (through online communications) and discuss case studies.

References

Course Material	Book
Author	Vile, A.
Publishing Year	2009
Title	TheSavvyGuideTo HPC, Grid, Data Grid, Virtualisation and

	Cloud Computing
Subtitle	
Edition	
Publisher	TheSavvyGuid
ISBN	095599070X

Course Material	Book
Author	Jennings, R.
Publishing Year	2009
Title	Cloud Computing with the Windows Azure Platform
Subtitle	
Edition	
Publisher	John Wiley & Sons
ISBN	0470506385

Course Material	Book
Author	Jayaswal, K.
Publishing Year	2005
Title	Administering Data Centers
Subtitle	Servers, Storage, and Voice Over IP
Edition	
Publisher	John Wiley & Sons
ISBN	047177183X

Notes

This module covers the history of and current developments in Cloud Computing and its supporting concepts and technology. All online activities are scheduled.