Liverpool John Moores University

Title:	NETWORKS AND SYSTEMS MANAGEMENT
Status:	Definitive
Code:	**5062COMP** (117451)
Version Start Date:	01-08-2011
Owning School/Faculty:	Computing and Mathematical Sciences
Teaching School/Faculty:	Computing and Mathematical Sciences

Team	Leader
Rubem Pereira	Y
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Academic Level:	FHEQ5	**Credit Value:**	24.00	**Total Delivered Hours:**	72.00
Total Learning Hours:	240	**Private Study:**	168		

Delivery Options
Course typically offered: Standard Year Long

Component	Contact Hours
Lecture	24.000
Practical	12.000
Seminar	12.000
Tutorial	24.000

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	AS1	Students will develop a networking design plan for a particular application development project.	50.0	
Report	AS2	Students will analyse a complex system management scenario and propose a detailed solution, including the overall architecture used and specific tools adopted.	50.0	

Aims

Develop understanding of computer networks, their protocols and architecture.
Study the Internet as the major example of a Wide Area Network.
Understand the principles of distributed management systems and distributed-systems management.
Consider distributed management systems solutions and their range of applicability.

Learning Outcomes

After completing the module the student should be able to:

1	Evaluate computer networks, their architectures and protocols.
2	Analyse the requirements and formulate solutions for networking computing applications.
3	Identify the necessary components for the management of complex distributed systems.
4	Select appropriate tools for distributed project management.

Learning Outcomes of Assessments

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

Networking design	1	2
System analysis	3	4

Outline Syllabus

Networking; applications, protocols, architecture:

-Data Communications; physical layer, data-link, LANs
-Internet; TCP/IP, routing, DNS
-Internet application protocols; SMTP, HTTP, P2P
-WAN/Access – broadband, enterprise networks
-Network Management – SNMP, security, multimedia and traffic

Distributed Systems Management:

-Principles of system management;
-Network Management Aims
-SNMP: components, operations, SNMP V3
-Web Based Enterprise Management
-Tools for distributed project management

Learning Activities

Students will participate in lectures, tutorials, seminar/group work, and practical/lab

sessions.

References

Course Material	Book
Author	Comer, D.
Publishing Year	2008
Title	Computer Networks and Internets
Subtitle	
Edition	5th Edition
Publisher	Prentice Hall
ISBN	0136061273

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

Course Material	Book
Author	Tannebaum, A.S.
Publishing Year	2003
Title	Computer Networks
Subtitle	
Edition	4th Edition
Publisher	Prentice Hall
ISBN	0130661023

Course Material	Book
Author	Hobbs, C.
Publishing Year	2006
Title	A Practical Approach to WBEM/CIM Management
Subtitle	
Edition	
Publisher	Auerbach
ISBN	0849323061

Notes

This module will provide the underlying knowledge of computer networks, with their topologies and protocols, as well as the principles and solutions of management of

complex systems across computer networks. Such systems include networks, distributed computer systems, and distributed collaborative projects.