Liverpool John Moores University

Title: NETWORKS & INFORMATION SYSTEMS
Status: Definitive
Code: **6517TECYPC**   (120592)
Version Start Date: 01-08-2018

Owning School/Faculty: Engineering
Teaching School/Faculty: YPC International College (Kolej Antarabangsa YPC)

Team	Leader
Michael Shaw	

Academic Level:	FHEQ6	**Credit Value:**	24	**Total Delivered Hours:**	115
Total Learning Hours:	240	**Private Study:**	125		

Delivery Options
Course typically offered: Standard Year Long

Component	Contact Hours
Lecture	56
Practical	56

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	AS1	Examination	50	3
Report	AS2	Individual Report	25	
Report	AS3	Group Report	25	

Aims

This level 6 module builds on level 5 material to provide an appreciation of modern software systems, their configuration, high speed, optical and wireless networks.

Learning Outcomes

After completing the module the student should be able to:

1   Differentiate how high speed networking components function
2   Evaluate an operating system in a networking environment
3   Assess and appraise the network routing methodologies and strategies
4   Manage network security and authorisation systems
5   Evaluate concepts behind wireless networking and apply them to industry and in
        the home

Learning Outcomes of Assessments

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

Examination   1   2

Report   3

Report   4   5

Outline Syllabus

Fundamental data and signals
Error detection and error control
multiplexing
*High speed communications networks: Gigabit Ethernet, FDDI, ATM, Frame relay,
SDH*
Broadband connections: xDSL, BISDN
IP protocol suite
Routing: routing strategies, routing protocols
Wireless networks: IEEE 802.11 family, Bluetooth
Generation mobile phone systems.
Network security – the use of firewalls, encryption and digital certificates.
Network Management of users, resources and security.
Application performance within networks.

Learning Activities

By a series of lectures and practical demonstrations

Course Material	Book
Author	Curt M White
Publishing Year	2011
Title	Fundamentals of Networking and Data Communications
Subtitle	
Edition	6th ed
Publisher	Course Technology
ISBN	

Course Material	Book
Author	Jorge Olenewa
Publishing Year	2013
Title	Guide to Wireless Communications
Subtitle	
Edition	3rd ed
Publisher	Course Technology
ISBN	

Notes

This level 6 module covers the areas of operating systems configuration in a networking environment, high-speed networking and wireless networks