

Liverpool John Moores University

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Title: Networks and Information Systems
Status: Definitive
Code: **4607TECYPC** (121712)
Version Start Date: 01-08-2021

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

Team	Leader
Karl Jones	Y

Academic Level: FHEQ4 **Credit Value:** 20 **Total Delivered Hours:** 74
Total Learning Hours: 200 **Private Study:** 126

Delivery Options

Course typically offered: Semester 1

Component	Contact Hours
Lecture	36
Tutorial	36

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	AS1	Group Report	50	
Exam	AS2	Examination	50	2

Aims

This module will provide an appreciation of modern software systems and their configuration, as well as high speed, optical and wireless networks.

Learning Outcomes

After completing the module the student should be able to:

- 1 Define the concept of network security and authorisation systems
- 2 Research and test an operating system in a networking environment
- 3 Explain how high-speed networking components function and routing methodologies and strategies
- 4 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:

Group Report	1	2
Examination	3	4

Outline Syllabus

Fundamental data and signals

Error detection and error control

Operating System multiplexing

High speed communications networks: for example Gigabit Ethernet, SDH, MPLS

Broadband connections: such as xDSL, FTTH

IP protocol suite

Routing: routing strategies, routing protocols

Wireless networks: IEEE 802.11 family, Bluetooth, 4G/5G

Network security – the use of firewalls, encryption and digital certificates. Application performance within networks

Learning Activities

Lectures, tutorials, videos and case studies as interactive learning

Notes

This level 4 module covers the areas of operating systems configuration in a networking environment, high-speed networking and wireless networks