Liverpool John Moores University

Title: Advanced Networks
Status: Definitive
Code: **6115ENG**   (116986)
Version Start Date: 01-08-2016

Owning School/Faculty: Electronics and Electrical Engineering
Teaching School/Faculty: Electronics and Electrical Engineering

Team	Leader
Ronan McMahon	Y

Academic Level:	FHEQ6	**Credit Value:**	10	**Total Delivered Hours:**	38
Total Learning Hours:	100	**Private Study:**	62		

Delivery Options
Course typically offered: Standard Year Long

Component	Contact Hours
Lecture	24
Practical	12

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	Exam		70	2
Technology	Tech 1		15	
Technology	Tech 2		15	

Aims

The module expands networking knowledge developing the areas of routing, user traffic and security

Learning Outcomes

After completing the module the student should be able to:

1	Explain how high speed networking components function
2	Discuss network routing methodologies and strategies
3	Evaluate network security and specify appropriate systems
4	Simulate network scenarios and evaluate performance

Learning Outcomes of Assessments

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

Exam   1   2   3

Coursework 1   4

Coursework 1   4

Outline Syllabus

High speed networks: LANs and WANs
Wireless networks: IEEE 802.11,
IP, TCP and UDP.
IP Routing and MPLS
Network level applications: DNS, DHCP, VPN, etc.
User applications and performance (VoIP, FTP, HTTP)
Network Management and traffic
Network Security

Learning Activities

Lectures and lab work

Notes

This module explores networking in more complex global settings. It incorporates protocols at various levels, the concept of routing, security in networking and introduces Wireless systems.