Network Design, Implementation and Management

Module Information

2022.01, Approved

Summary Information

Module Code	5553NCCG
Formal Module Title	Network Design, Implementation and Management
Owning School	Computer Science and Mathematics
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 5
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
LJMU Partner Taught

Partner Teaching Institution

Institution Name
Nelson and Colne College Group

Learning Methods

Learning Method Type	Hours
Lecture	60

Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
JAN-PAR	PAR	January	12 Weeks
SEP-PAR	PAR	September	12 Weeks

SEP_NS-PAR	PAR	September (Non-standard start date)	12 Weeks

Aims and Outcomes

Aims	This module introduces students to simple network Planning, Configurations, Setup, and Management, including LAN, WAN, NAT, PAN, MAN, using a variety of tools and methods for managing Networks, including Network Monitoring, Network Security such as Snort, Firewalls & IPS, Network Protocols and standards such as SNMP, NETCONF, IEEE, MIBII, RMON, MDIB & ANS.1, as well as industry's best practices. Students will also be introduced to Virtual Networks, Network Operating Systems, Risk Management and Cloud Network Management.

After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Implement a network using LAN design principles based on a predefined set of requirements.
MLO2	2	Produce an appropriate WAN solution to a set of organisational requirements.
MLO3	3	Configure Network Security measures for the corporate environment.

Module Content

Outline Syllabus	Theory:Network Management Concepts and Principles: effective network management, including different technologies, protocols and activities associated with Networking Management and how they relate to one another. Network Protocols and StandardsIntroduction to mobile and wireless networkingTools and methodsRisk ManagementPractice:• Plan a network based on a given scenario. • Design a network based on a given scenario.• Setup a network based on a given scenario. • Configure and test a network, including setting up all devices
Module Overview	
Additional Information	

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Report	Assignment	100	0	MLO2, MLO3
Competency	NCC Group Pass/Fail			MLO1

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Silvester Czanner	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings