MODULE DESCRIPTOR

Module Title

Computing Enterprise Network Design

Reference	CM3156	Version	1
Created	March 2024	SCQF Level	SCQF 9
Approved	August 2017	SCQF Points	30
Amended	July 2022	ECTS Points	15

Aims of Module

To provide the student with the ability to critically appraise the requirements analysis, design and implementation of computer networks in the industrial and commercial environment.

Learning Outcomes for Module

On completion of this module, students are expected to be able to:

1	Explain the issues involved in developing a requirements analysis document for industry-based computer networks.
2	Assess the methodologies used when designing a network in commercial environments.
3	Review architectural patterns in network design.
4	Demonstrate an understanding of various designs currently implemented in enterprise networks.
5	Review the commercial and economic issues associated with enterprise network design.

Indicative Module Content

Network design, implementation and maintenance. Practicalities of designing, implementing and maintaining a network in a commercial environment. Enterprise WAN, Data Centre, Storage and Virtual Private networks. Implementation and design of modern communication systems. Case studies.

Module Delivery

Key concepts are introduced and illustrated through lectures. The understanding of students is tested and further enhanced through interactive labs. In the laboratories the students will progress through a sequence of exercises to develop sufficient knowledge of the subject.

Module Ref:	CM3156 v1

Indicative Student Workload	Full Time	Part Time
Contact Hours	60	N/A
Non-Contact Hours	240	N/A
Placement/Work-Based Learning Experience [Notional] Hours	N/A	N/A
TOTAL	300	N/A
Actual Placement hours for professional, statutory or regulatory body		

ASSESSMENT PLAN

If a major/minor model is used and box is ticked, % weightings below are indicative only.

Component 1

Type:	Coursework	Weighting:	100%	Outcomes Assessed:	1, 2, 3, 4, 5
Description:	A Coursework that covers all the Learning Outcomes (LOs) listed above.				

MODULE PERFORMANCE DESCRIPTOR

Explanatory Text

The calculation of the overall grade for this module is based on 100% weighting of C1. An overall minimum grade D is required to pass the module.

Module Grade	Minimum Requirements to achieve Module Grade:
A	The student needs to achieve an A in C1
B	The student needs to achieve a B in C1
C	The student needs to achieve a C in C1
D	The student needs to achieve a D in C1
E	The student needs to achieve an E in C1
F	The student needs to achieve an F in C1
NS	Non-submission of work by published deadline or non-attendance for examination

Module Requirements

Prerequisites for Module	None.
Corequisites for module	None.
Precluded Modules	None.

INDICATIVE BIBLIOGRAPHY

1	West, J., & White, C. M. (2023). Data communications & computer networks: A business user's approach. Cengage.
2	Varghese, G., & Xu, J. (2022). Network Algorithmics: an interdisciplinary approach to designing fast networked devices. Morgan Kaufmann.
3	Okasha, K. (2020). Network Automation Cookbook: Proven and actionable recipes to automate and manage network devices using Ansible. Packt Publishing Ltd.
4	Zsiga, Z. (2023). Cisco Certified Design Expert (CCDE 400-007) Official Cert Guide. Cisco Press.