



MODULE SPECIFICATION

Part 1: Information			
Module Title	Advanced Networking		
Module Code	UFCFBT-15-2	Level	Level 5
For implementation from	2020-21		
UWE Credit Rating	15	ECTS Credit Rating	7.5
Faculty	Faculty of Environment & Technology	Field	Computer Science and Creative Technologies
Department	FET Dept of Computer Sci & Creative Tech		
Module type:	Standard		
Pre-requisites	None		
Excluded Combinations	None		
Co- requisites	None		
Module Entry requirements	None		

Part 2: Description
<p>Overview: The module reflects the job skills and responsibilities that are associated with professional-level job roles such as network engineer, systems engineer, network support engineer, network administrator, and network consultant.</p> <p>Educational Aims: To equip you with the knowledge and skills needed to monitor and maintain complex, enterprise routed and switched IP networks. To reinforce configuration skills using a range of routing protocols in IPv4 environments and the secure integration of VLANs and WLANs into campus networks.</p> <p>Outline Syllabus: Basic Device Configuration</p> <p>VLANs Concepts and Configuration</p> <p>Spanning Tree Fundamentals</p> <p>DHCPv4 Concepts and Configuration</p> <p>LAN Security Concepts</p> <p>WLAN Concepts and Configuration</p>

STUDENT AND ACADEMIC SERVICES

Routing Concepts including: Static and Dynamic Routing

Troubleshoot Static and Dynamic Routes

Teaching and Learning Methods: Introductory lectures covering the fundamentals and technical underpinning of the module for the first assessment before progressing onto practical delivery through a series of lessons, workshops and practical tasks in a Network Lab to develop the tools and techniques required to complete the practical assessment for this module.

Part 3: Assessment

This module is assessed by a combination of techniques: a practical portfolio, and a presentation.

The practical portfolio requires students to design and develop a networking solution for a client brief including relevant technical documentation.

The presentation will then require students to explain their technical understanding of networking and explore how resilience and redundancy should be built into computer networks.

Tutor-lead formative feedback will be available throughout the module.

First Sit Components	Final Assessment	Element weighting	Description
Presentation - Component A	✓	25 %	Presentation (15 mins)
Portfolio - Component B		75 %	Practical Portfolio
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Portfolio - Component B		75 %	Practical Portfolio

STUDENT AND ACADEMIC SERVICES

Part 4: Teaching and Learning Methods																	
Learning Outcomes	<p>On successful completion of this module students will achieve the following learning outcomes:</p> <table border="1"> <thead> <tr> <th style="text-align: left;">Module Learning Outcomes</th> <th style="text-align: left;">Reference</th> </tr> </thead> <tbody> <tr> <td>Apply device configurations for network devices using the Command Line Interface</td> <td>MO1</td> </tr> <tr> <td>Use routers, switches and wireless devices to configure and troubleshoot VLAN and Wireless LANs</td> <td>MO2</td> </tr> <tr> <td>Configure and troubleshoot redundancy on a switched network using STP</td> <td>MO3</td> </tr> <tr> <td>Explain, justify and communicate how a networking design and solution meets set requirements.</td> <td>MO4</td> </tr> <tr> <td>Critically discuss how to support available and reliable networks.</td> <td>MO5</td> </tr> </tbody> </table>	Module Learning Outcomes	Reference	Apply device configurations for network devices using the Command Line Interface	MO1	Use routers, switches and wireless devices to configure and troubleshoot VLAN and Wireless LANs	MO2	Configure and troubleshoot redundancy on a switched network using STP	MO3	Explain, justify and communicate how a networking design and solution meets set requirements.	MO4	Critically discuss how to support available and reliable networks.	MO5				
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Reading List	<p><i>The reading list for this module can be accessed via the following link:</i></p> <p>https://rl.talis.com/3/uwe/lists/5E7FFA0D-361D-8D94-98D7-8C11FD9935AE.html</p>																

Part 5: Contributes Towards
This module contributes towards the following programmes of study: