University of the West of Scotland

Module Descriptor

Session: 2024/25

Title of Module: CCNA3: Enterprise Networks, Security & Automation			
Code: COMP08097	**SCQF Level: 8 (Scottish Credit and Qualifications Framework)**	**Credit Points: 20**	**ECTS: 10 (European Credit Transfer Scheme)**
School:	School of Computing		
Module Co-ordinator:	Duncan Thomson		

Summary of Module

This module covers part 3 (of 3) of the Cisco Certified Network Associate (CCNA) curriculum. It is based on the current version of the curriculum materials, currently v7.

The curriculum covers the skills and knowledge required for configuring, securing and managing enterprise networks, including: OSPF Concepts and Configuration; Network Security; WAN Concepts; Network Optimisation, Monitoring & Troubleshooting; Emerging Network Technologies.

Module Delivery Method

Face-To-Face	**Blended**	**Fully Online**	**HybridC**	**Hybrid 0**	**Work-Based Learning**
☑	☑	☐	☐	☐	☐

See Guidance Note for details.

Campus(es) for Module Delivery

The module will **normally** be offered on the following campuses / or by Distance/Online Learning: (Provided viable student numbers permit) (tick as appropriate)

Paisley:	Ayr:	Dumfries:	Lanarkshire:	London:	Distance/Online Learning:	Other:
☑	☐	☐	☐	☐	☐	Add name

Term(s) for Module Delivery

(Provided viable student numbers permit).					
Term 1	☐	Term 2	☑	Term 3	☐

Learning Outcomes: (maximum of 5 statements) **These should take cognisance of the SCQF level descriptors and be at the appropriate level for the module.** At the end of this module the student will be able to:	
L1	Demonstrate an understanding of concepts such as dynamic routing, address translation, security, monitoring and automation in networks,
L2	Configure and secure a network using dynamic routing and address translation

Employability Skills and Personal Development Planning (PDP) Skills		
SCQF Headings	During completion of this module, there will be an opportunity to achieve core skills in:	
Knowledge and Understanding (K and U)	SCQF Level 8 Understanding Access Control Lists and their uses Understanding dynamic routing and the OSPF protocol Understanding where and how to use Network Address Translation Understanding methods of managing and monitoring a scalable and flexible network	
Practice: Applied Knowledge and Understanding	SCQF Level 8 Configuring Cisco routers and switches using the IOS command line Implementing ACLs to meet given requirements	
Generic Cognitive skills	SCQF Level 8 Troubleshooting basic switched and routed networks	
Communication, ICT and Numeracy Skills	SCQF Level 8 Working with a Command Line Interface Managing documentation, configuration and IOS image files	
Autonomy, Accountability and Working with others	SCQF Level 8 Working in coordination with others in a networked environment	
Pre-requisites:	Before undertaking this module the student should have undertaken the following:	
	Module Code: COMP07012	**Module Title:** CCNA1: Introduction to Networks
	Other:	

Co-requisites	**Module Code:** COMP08097	**Module Title:** CCNA2: Switching, Routing & Wireless Essentials (alternatively, may be taken as a prerequisite)

*Indicates that module descriptor is not published.

Learning and Teaching	
In line with current learning and teaching principles, a 20-credit module includes 200 learning hours, normally including a minimum of 36 contact hours and maximum of 48 contact hours.	
Learning Activities During completion of this module, the learning activities undertaken to achieve the module learning outcomes are stated below:	**Student Learning Hours** (Normally totalling 200 hours): (Note: Learning hours include both contact hours and hours spent on other learning activities)
Lecture/Core Content Delivery	15
Laboratory/Practical Demonstration/Workshop	30
Independent Study	155
	200 Hours Total

****Indicative Resources: (eg. Core text, journals, internet access)**

The following materials form essential underpinning for the module content and ultimately for the learning outcomes:

Cisco's online curriculum at https://www.netacad.com/

Access to a networking labs with equipment supporting the latest version of the CCNA curriculum

Software: Packet Tracer, VirtualBox, Wireshark, Putty, TFTP and Syslog servers

Please ensure the list is kept short and current. Essential resources should be included, broader resources should be kept for module handbooks / Aula VLE.

Resources should be listed in Right Harvard referencing style or agreed professional body deviation and in alphabetical order.

(**N.B. Although reading lists should include current publications, students are advised (particularly for material marked with an asterisk*) to wait until the start of session for confirmation of the most up-to-date material)

Attendance and Engagement Requirements
In line with the Student Attendance and Engagement Procedure: Students are academically engaged if they are regularly attending and participating in timetabled on-campus and online teaching sessions, asynchronous online learning activities, course-related learning resources, and complete assessments and submit these on time. For the purposes of this module, academic engagement equates to the following: Students are expected to attend at least 75% of timetabled classes, and are expected to regularly take part in practical labs configuring networking equipment. Students are expected to completing ongoing assessments in Cisco's Netacad VLE.

Equality and Diversity
The University's Equality, Diversity and Human Rights Procedure can be accessed at the following link: UWS Equality, Diversity and Human Rights Code. In order for the student to complete this module the student will be required to take part in laboratory and computer-based exercises, including both computer-based and laboratory-based assessments. Students with substantial physical impairments or visual or auditory handicaps should be assessed and counseled prior to selecting courses requiring this module. When a student discloses a disability a special needs advisor will - **after** consulting with the module coordinator - agree the appropriate adjustments to be made.
(N.B. Every effort will be made by the University to accommodate any equality and diversity issues brought to the attention of the School)

Supplemental Information

Divisional Programme Board	Computing
Assessment Results (Pass/Fail)	Yes ☐No ☒
School Assessment Board	Business & Applied Computing
Moderator	Steve Eager
External Examiner	R Khusainov
Accreditation Details	
Changes/Version Number	2.02

Assessment: (also refer to Assessment Outcomes Grids below)
This section should make transparent what assessment categories form part of this module (stating what % contributes to the final mark). Maximum of 3 main assessment categories can be identified (which may comprise smaller elements of assessment). **NB: The 30% aggregate regulation (Reg. 3.9) (40% for PG) for each main category must be taken into account. When using PSMD, if all assessments are recorded in the one box, only one assessment grid will show and the 30% (40% at PG) aggregate regulation will not stand. For the aggregate regulation to stand, each component of assessment must be captured in a separate box.** Please provide brief information about the overall approach to assessment that is taken within the module. In order to be flexible with assessment delivery, be brief, but do state assessment type (e.g. written assignment rather than "essay" / presentation, etc) and keep the detail for the module handbook. Click or tap here to enter text.
Assessment 1: Completion of "Module Tests", a series of open-book computer-based assessments (multiple attempts allowed) – worth 20%
Assessment 2: A final closed book online test taken in exam conditions – worth 40%
Assessment 3: A timed, lab-based assessment taken in exam conditions on real network equipment – worth 40%
(N.B. (i) **Assessment Outcomes Grids** for the module (one for each component) can be found below which clearly demonstrate how the learning outcomes of the module will be assessed. (ii) An **indicative schedule** listing approximate times within the academic calendar when assessment is likely to feature will be provided within the Student Module Handbook.)

Assessment Outcome Grids (See Guidance Note)

Component 1							
Assessment Type (Footnote B.)	**Learning Outcome (1)**	**Learning Outcome (2)**	**Learning Outcome (3)**	**Learning Outcome (4)**	**Learning Outcome (5)**	**Weighting (%) of Assessment Element**	**Timetabled Contact Hours**
Portfolio of online open book quizzes, multiple attempts permitted	☑					20%	0

Component 2							
Assessment Type (Footnote B.)	**Learning Outcome (1)**	**Learning Outcome (2)**	**Learning Outcome (3)**	**Learning Outcome (4)**	**Learning Outcome (5)**	**Weighting (%) of Assessment Element**	**Timetabled Contact Hours**
Online closed book **class test**	☑					40%	1.5

Component 3							
Assessment Type (Footnote B.)	**Learning Outcome (1)**	**Learning Outcome (2)**	**Learning Outcome (3)**	**Learning Outcome (4)**	**Learning Outcome (5)**	**Weighting (%) of Assessment Element**	**Timetabled Contact Hours**
Timed **laboratory assessment**		☑				40%	2
Combined Total for All Components						**100%**	**3.5**

Change Control:

Version Number: MD Template 1 (2023-24)