

## University of the West of Scotland

## Module Descriptor

Session: 2024/25

<b>Title of Module:</b> CCNA2: Switching, Routing & Wireless Essentials			
<b>Code:</b> COMP08097	<b>SCQF Level: 8</b> (Scottish Credit and Qualifications Framework)	<b>Credit Points:</b> 20	<b>ECTS: 10</b> (European Credit Transfer Scheme)
<b>School:</b>	School of Computing		
<b>Module Co-ordinator:</b>	Duncan Thomson		
<b>Summary of Module</b>			
<p>This module covers part 2 (of 3) of the Cisco Certified Network Associate (CCNA) curriculum. It is based on the current version of the curriculum materials, currently v7.</p> <p>The curriculum covers the skills and knowledge required for basic routing and switch configuration, including: Switching Concepts, VLANs and Inter-VLAN Routing; Redundant Networks, Available and Reliable Networks, Layer 2 Security and WLANs, and Routing Concepts and Configuration.</p>			

<b>Module Delivery Method</b>					
<b>Face-To-Face</b>	<b>Blended</b>	<b>Fully Online</b>	<b>HybridC</b>	<b>Hybrid 0</b>	<b>Work-Based Learning</b>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>See Guidance Note for details.</b>					

<b>Campus(es) for Module Delivery</b>						
The module will <b>normally</b> be offered on the following campuses / or by Distance/Online Learning: (Provided viable student numbers permit) (tick as appropriate)						
<b>Paisley:</b>	<b>Ayr:</b>	<b>Dumfries:</b>	<b>Lanarkshire:</b>	<b>London:</b>	<b>Distance/Online Learning:</b>	<b>Other:</b>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Add name

<b>Term(s) for Module Delivery</b>
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(Provided viable student numbers permit).					
Term 1	<input type="checkbox"/>	Term 2	<input checked="" type="checkbox"/>	Term 3	<input type="checkbox"/>

<p><b>Learning Outcomes: (maximum of 5 statements)</b>  <b>These should take cognisance of the SCQF level descriptors and be at the appropriate level for the module.</b>          At the end of this module the student will be able to:</p>		
L1	Demonstrate an understanding of the core concepts, principles, terminology and operation of basic routed, switched and wireless networks	
L2	Configure and secure a basic network of routers and switches with VLANs, DHCP and static routing	
<p><b>Employability Skills and Personal Development Planning (PDP) Skills</b></p>		
<b>SCQF Headings</b>	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 redundancy features in switched networks Understanding static and default routing Understanding wireless networks and their protocols Understanding virtual VLANs	
Practice: Applied Knowledge and Understanding	SCQF Level 8 Configuring IOS on Cisco routers and switches Configuring a wireless LAN (WLAN)	
Generic Cognitive skills	SCQF Level 8 Troubleshooting basic switched and wireless networks	
Communication, ICT and Numeracy Skills	SCQF Level 8 Working with a Command Line Interface	
Autonomy, Accountability and Working with others	SCQF Level 8 Working in coordination with others in a networked environment	
<b>Pre-requisites:</b>	Before undertaking this module the student should have undertaken the following:	
	<b>Module Code:</b> COMP07012	<b>Module Title:</b> CCNA1: Introduction to Networks
	<b>Other:</b>	
<b>Co-requisites</b>	<b>Module Code:</b>	<b>Module Title:</b>

\*Indicates that module descriptor is not published.

<b>Learning and Teaching</b>	
<b>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.</b>	
<b>Learning Activities</b> During completion of this module, the learning activities undertaken to achieve the module learning outcomes are stated below:	<b>Student Learning Hours</b> (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
<b>**Indicative Resources: (eg. Core text, journals, internet access)</b>	
<p>The following materials form essential underpinning for the module content and ultimately for the learning outcomes:</p> <p>Cisco's online curriculum at <a href="https://www.netacad.com/">https://www.netacad.com/</a></p> <p>Access to a networking labs with equipment supporting the latest version of the CCNA curriculum</p> <p>Software: Packet Tracer, VirtualBox, Wireshark, Putty</p> <p>Please ensure the list is kept short and current. Essential resources should be included, broader resources should be kept for module handbooks / Aula VLE.</p> <p>Resources should be listed in Right Harvard referencing style or agreed professional body deviation and in alphabetical order.</p>	
(**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

<b>Divisional Programme Board</b>	Computing
<b>Assessment Results (Pass/Fail)</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
<b>School Assessment Board</b>	Business & Applied Computing
<b>Moderator</b>	Steve Eager
<b>External Examiner</b>	R Khusainov
<b>Accreditation Details</b>	
<b>Changes/Version Number</b>	1.05

<b>Assessment: (also refer to Assessment Outcomes Grids below)</b>
<p>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).  <b>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.</b>  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. <a href="#">Click or tap here to enter text.</a></p>
<p>Assessment 1: Completion of “Module Tests”, a series of open-book computer-based assessments (multiple attempts allowed) – worth 20%</p>
<p>Assessment 2: A final closed book online test taken in exam conditions – worth 40%</p>
<p>Assessment 3: A timed, lab-based assessment taken in exam conditions on real network equipment – worth 40%</p>
<p>(N.B. (i) <b>Assessment Outcomes Grids</b> 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 <b>indicative schedule</b> listing approximate times within the academic calendar when assessment is likely to feature will be provided within the Student Module Handbook.)</p>

**Assessment Outcome Grids (See Guidance Note)**

<b>Component 1</b>							
<b>Assessment Type (Footnote B.)</b>	<b>Learning Outcome (1)</b>	<b>Learning Outcome (2)</b>	<b>Learning Outcome (3)</b>	<b>Learning Outcome (4)</b>	<b>Learning Outcome (5)</b>	<b>Weighting (%) of Assessment Element</b>	<b>Timetabled Contact Hours</b>
<b>Portfolio</b> of online open book quizzes, multiple attempts permitted	<input checked="" type="checkbox"/>					20%	0

<b>Component 2</b>							
<b>Assessment Type (Footnote B.)</b>	<b>Learning Outcome (1)</b>	<b>Learning Outcome (2)</b>	<b>Learning Outcome (3)</b>	<b>Learning Outcome (4)</b>	<b>Learning Outcome (5)</b>	<b>Weighting (%) of Assessment Element</b>	<b>Timetabled Contact Hours</b>
Online closed book <b>class test</b>	<input checked="" type="checkbox"/>					40%	1.5

<b>Component 3</b>							
<b>Assessment Type (Footnote B.)</b>	<b>Learning Outcome (1)</b>	<b>Learning Outcome (2)</b>	<b>Learning Outcome (3)</b>	<b>Learning Outcome (4)</b>	<b>Learning Outcome (5)</b>	<b>Weighting (%) of Assessment Element</b>	<b>Timetabled Contact Hours</b>
Timed <b>laboratory assessment</b>		<input checked="" type="checkbox"/>				40%	2
<b>Combined Total for All Components</b>						<b>100%</b>	<b>3.5</b>

**Change Control:**

Version Number: MD Template 1 (2023-24)