Module Specification

Networking and Security II

Version: 2023-24, v2.0, 19 Jul 2023

Contents

Part 1: Information

Module title: Networking and Security II

Module code: UFCFXM-15-2

Level: Level 5

For implementation from: 2023-24

UWE credit rating: 15

ECTS credit rating: 7.5

Faculty: Faculty of Environment & Technology

Department: FET Dept of Computer Sci & Creative Tech

Partner institutions: None

Field: Computer Science and Creative Technologies

Module type: Module

Pre-requisites: None

Excluded combinations: None

Co-requisites: None

Continuing professional development: No

Professional, statutory or regulatory body requirements: None

Part 2: Description

Overview: This topic builds on the previous module 'Networking and Security' in relation to the basic networking infrastructure, and network infrastructure solutions.

Features: Not applicable

Educational aims: The primary focus within this module is to build on the practical elements of networking and security. It gives the apprentices the knowledge and skills that they need for the planning, designing, implementation and management of

computer networks and understanding of the network infrastructure capabilities and limitations.

Outline syllabus: The syllabus includes:

Network design

Network topologies

Reviewing business and technical requirements

Issues that may arise in the day to day operation of networks, including network security risks and their remediation

Plan a computer system network based upon estimated business data traffic needs that will meet the future business needs

Policy setting e.g. Service Level Agreement (SLA)

An introduction into the practical elements of networking

Part 3: Teaching and learning methods

Teaching and learning methods: Introductory lectures are supported by seminars, case studies, visits and practical workshops. In addition this module will be supported by interactive forums and learning tools.

150 hours study time of which 36 hours will represent scheduled learning. Scheduled learning includes lectures, seminars, tutorials, demonstration, practical classes and workshops; external visits; supervised time in studio/workshops.

Independent learning includes hours engaged with essential reading, case study preparation, assignment preparation and completion. Apprentice study time will be

organised each week with a series of both essential and further readings and preparation for practical workshops. It is suggested that preparation for lectures, practical workshops, session delivery and seminars will take 7 hours per week.

Contact Hours:

36 hours scheduled learning

114 hours research, independent study and preparation for assessment work

Scheduled learning will typically include lectures, seminars, supervision, external visits and an interactive forum.

All apprentices are expected to attend a series of tutorials.

Module Learning outcomes: On successful completion of this module students will achieve the following learning outcomes.

> **MO1** Plan a computer system network based upon estimated business data traffic needs to meet a business solution.
>
> **MO2** Produce a network design, analysing business and technical requirements, selecting appropriate network technologies and topologies.
>
> **MO3** Identify network security risks and their remediation, discussing issues that may arise in the day to day operation of networks.

Hours to be allocated: 150

Contact hours:

> Independent study/self-guided study = 114 hours
>
> Face-to-face learning = 36 hours
>
> Total = 150

Reading list: The reading list for this module can be accessed at readinglists.uwe.ac.uk via the following link https://uwe.rl.talis.com/index.html

Part 4: Assessment

Assessment strategy: At both first sit and resit, this module is assessed by a combination of techniques: a presentation (30 minutes) and a report (1500 words).

Presentation (30 Minutes)

Apprentices are expected to (individually, or in groups) deliver a 30 minute presentation. Apprentices will present the outcomes of practical tasks that support the core learning objectives of a network engineer. Based on a given scenario/requirement, apprentices will need to present a planned computer system network, based on estimated business data traffic, business and technical requirements, identifying and selecting appropriate network technologies and topologies.

Report (1500 Words)

Apprentices will be expected to produce a 1500 word report. Apprentices will have to identify network security risks, remediation, and issues that may arise daily. It is expected that apprentices will demonstrate depth of academic reading/research, identifying current security risks, reflecting on real life case studies.

Assessment tasks:

Presentation (First Sit)

Description: Presentation (30 mins) (in-class)

Weighting: 60 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO2

Report (First Sit)

Description: Report (1500 words)

Weighting: 40 %

Final assessment: No

Group work: No

Learning outcomes tested: MO3

Presentation (Resit)

Description: Presentation (30 mins) (in-class)

Weighting: 60 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO2

Report (Resit)

Description: Report (1500 words)

Weighting: 40 %

Final assessment: No

Group work: No

Learning outcomes tested: MO3

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Digital and Technology Solutions (Cyber Security Analyst) {Apprenticeship-UCW}
[UCW] BSc (Hons) 2022-23