# MODULE SPECIFICATION

| Part 1: Information | | | |
|---|---|---|---|
| Module Title | Networking and Security II | | |
| Module Code | UFCFXM-15-2 | Level | Level 5 |
| For implementation from | 2019-20 | | |
| 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

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

**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

**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.

**Part 3: Assessment**

This module is assessed by a combination of techniques: a presentation (30 minutes) and a report (1500 words).

Component A – 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.

Component B – 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.

| First Sit Components | **Final Assessment** | **Element weighting** | **Description** |
|---|---|---|---|
| Report - Component B | | 40 % | Report (1500 words) |
| Presentation - Component A | ✓ | 60 % | Presentation (30 mins) (in-class) |
| Resit Components | **Final Assessment** | **Element weighting** | **Description** |
| Report - Component B | | 40 % | Report (1500 words) |
| Presentation - Component A | ✓ | 60 % | Presentation (30 mins) (in-class) |

**Part 4: Teaching and Learning Methods**

Learning Outcomes

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

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

Contact Hours

| | |
|---|---|
| **Independent Study Hours:** | |
| Independent study/self-guided study | 114 |
| **Total Independent Study Hours:** | 114 |
| **Scheduled Learning and Teaching Hours:** | |
| Face-to-face learning | 36 |
| **Total Scheduled Learning and Teaching Hours:** | 36 |
| **Hours to be allocated** | 150 |
| **Allocated Hours** | 150 |

Reading List

*The reading list for this module can be accessed via the following link:*

https://uwe.rl.talis.com/index.html

**Part 5: Contributes Towards**

This module contributes towards the following programmes of study: