# Solent University Module Descriptor

## **Module Code: COM515 Module title: Connecting Networks**

### **Why is this module important?**

The *internetworks* for users, businesses, enterprises and industry are complex and they are connected by technologies which are developing rapidly to meet the need of internet of things, virtualisation and cloud-based networks.

This module has the aim of giving students the knowledge and practical skills to specify, design and implement large connected networks.

### **What you will learn on the module?**

You will learn specifically about the requirements of, and how to implement security, reliability and redundancy of network paths. You will also provide specified service levels between networks and quality of service as data travels through networks.

The module will prepare in part, for the student to take the Cisco Professional Certification: CCNA Routing and Switching

### **How you will learn?**

The module will consist of all lab-based practical sessions which will allow you to gain hands-on experience of the module topics through a series of lab activities. In most weeks, these will be preceded by a 'mini-lecture' to introduce the module topic and to ensure that you are aware of the background to the topic before beginning the practical exercise. During the lab sessions, we will be on-hand to help you with problems.

You will complete challenges which will enable you to use a combination of real network devices and equipment, computer networks devices and traffic simulation and analysis.

The course materials are available as interactive online reading and viewing materials with video animation and text interspersed with activities such as practical’s and real equipment, simulation and research labs.

### **How much time the module requires**

For a 20 Credit module you are expected to study for 200 hours (which equates to 10 hours per credit.  This total learning time is made up of contact time, directed learning tasks, independent learning and assessment activity. Your tutor will offer you guidance on how you should best manage your study time on this module

**How you will be assessed**

#### Tasks which help you to learn and prepares you for summative tasks

Your achievement will be monitored by both formative feedback provided by online chapter assessments which are related to the MCA test, feedback for each skills integration challenge which will be included in the portfolio. As well as on-line feedback you will be supported with individual verbal feedback.

**Tasks which count towards your degree (Summative):**

Complete an MCA test in class on the security to assess your knowledge of ability to provide redundancy and reliability of large networks

Complete a portfolio of skills integration challenges which include completing network documentation, planning and implementation, testing networks and troubleshooting networks for large organisations.

#### **When assessment does not go to plan**

The reassessment will be retaking the MCA test in the same format at the next available resit point.

You will receive and digest feedback from the tutor to improve and resubmit the portfolio. You will rework and resubmit the skills integration challenges.

### **What you will be able to do after the module**

1. Have the knowledge to analyse and consider solutions for redundancy and reliability of networks
2. Demonstrate a critical understanding of engineering and security problems created by connecting large scale computer networks and
3. Apply a wide range of techniques for connecting computer networks of business, enterprise and industry.
4. Analyse and solve real-world problems related to connecting large scale computer networks
5. Trace and correct faults with connecting large scale computer networks

### **How this relates to the dimensions of Solent’s Real-world curriculum framework**

|  |  |  |
| --- | --- | --- |
| Dimensions | How students learn | How students are assessed |
| Students are challenged to think in critical, creative and applied ways | Learning the module material will allow you to apply it to an interesting and engaging scenario. | The skills integration challenges will be assessed in the portfolio |
| Students are inspired to do research through inquiry, curiosity and problem-solving | The online activities are based around solving problems and the classroom activities are related to connecting real networks with real equipment. | Problems solved in the skills integration challenges are assessed in the portfolio. |
| Students experience an intellectually stimulating curriculum which inspires them to learn for life | The certification program is part of a lifelong learning strategy created by network professionals endorsed by Cisco | The MCA assessment is preparation for industry-based certifications with similar questions |

### Summative assessment details

|  |  |  |
| --- | --- | --- |
| AE1 | Weighting: | 50% |
|  | Assessment type: | MCA test |
|  | Aggregation: | Aggregated to AE2 |
|  | Length/duration: | 90Mins |
|  | Online submission: | No |
|  | Grade marking: | No |
|  | Anonymous marking: | No |

|  |  |  |
| --- | --- | --- |
| AE2 | Weighting: | 50% |
|  | Assessment type: | Portfolio of online skills challenges |
|  | Aggregation: | Aggregated to AE1 |
|  | Length/duration: | Minimum of 4 hours |
|  | Online submission: | Yes |
|  | Grade marking: | Yes |
|  | Anonymous marking: | Yes |

### **Module Author:**

|  |  |  |  |
| --- | --- | --- | --- |
| Module Title: Connecting Networks | | | |
| Credit Points: | 20 | Module Code: | COM515 |
| FHEQ Level: | 5 | School/Service | SMAT |
| Module Delivery Model: | CD | Max/Min student numbers | 25 |
| Module Leader: | Warren Earle | | |
| HECOS code | 100365 | | |

### **Module change history:**

|  |  |  |  |
| --- | --- | --- | --- |
| Module Approved/Year Implemented/Code | July 2019 | 2020/21 | COM515 |
| Module modified/Year Implemented/Code |  |  |  |
| Add extra rows as required |  |  |  |