

## Programme specification

### 1. Overview/ factual information

<b>Programme/award title(s)</b>	BSc (Hons) Cyber Security and Networking
<b>Teaching Institution</b>	Leeds City College
<b>Awarding Institution</b>	The Open University (OU)
<b>Date of latest OU validation</b>	July 2016
<b>Next revalidation</b>	July 2021
<b>Credit points for the award</b>	120 credits for BSc (Hons)
<b>UCAS Code</b>	8H24
<b>Programme start date</b>	September 2017
<b>Underpinning QAA subject benchmark(s)</b>	Computing (2007)
<b>Other external and internal reference points used to inform programme outcomes</b>	E-Skills NOS for IT and Telecoms Professionals BCS Guidelines– Guidelines on course accreditation 2010 ISO Standard : 27001
<b>Professional/statutory recognition</b>	None
<b>Duration of the programme for each mode of study (P/T, FT,DL)</b>	Full time and Part Time
<b>Dual accreditation (if applicable)</b>	n/a
<b>Date of production/revision of this specification</b>	June 2017

#### 2.1 Educational aims and objectives

The aim of the programme is to produce graduates:

- ◆ Who have an analytical and reflective understanding of networking and security in the context of the workplace today and in relation to the wider social, ethical and cultural environment.
- ◆ With enhanced employability and career prospects within the specialised sector of networking and security with the opportunity to develop specialist skills and knowledge in this area.
- ◆ Who will have experienced working and studying with peers from diverse backgrounds
- ◆ Who will have the opportunity to gain additional professional qualifications such as ISC2, CISSP, VMWARE VCP, PRINCE2 PRACTITIONER, CITRIX ZENAPP6.5, EMCISA whilst studying the course with little or no additional work other than their course work

- ◆ Who have the ability to critically reflect and learn from their in class experience, personal work experience as well as external visits and relate this to relevant theory and practical projects

## 2.2 Relationship to other programmes and awards

(Where the award is part of a hierarchy of awards/programmes, this section describes the articulation between them, opportunities for progression upon completion of the programme, and arrangements for bridging modules or induction)

N/A

### 3. Programme outcomes

Intended learning outcomes are listed below.

3A. Knowledge and understanding		
Learning outcomes:		Learning and teaching strategy/ assessment methods
<b>K1</b>	Plan, undertake and evaluate a negotiated, self-managed major networking and security / academic project	<ul style="list-style-type: none"> <li>• Modules will be delivered using lectures to deliver theoretical aspects and to underpin knowledge in all the modules.</li> <li>• Practical sessions will be used to supplement the theory and allow students to develop a range of employability skills that enable them to undertake professional qualifications alongside their degree in the modules: Project Management, Virtualisation, Information Security Management and Database Administration.</li> <li>• Guest speakers will be used for students to gain access to a different range of experiences in Research Methods, Information Security Management, Project Management and Virtualisation Technologies.</li> <li>• Group work will allow students to develop projects that include research, problem solving, peer reflection and other teamwork skills.</li> <li>• Tutor and peer led reflective feedback form the basis of student development strategies</li> <li>• Tutorials will take the form of regular group and individual support for student guidance across the whole of the programme.</li> <li>• Students will also be directed to the relevant primary literature, books and internet resources, which they will be expected to study in order to supplement the modules they are studying. E-learning : VLE – Moodle, Internet based resources, Podcasts</li> </ul> <p><b>Assessment Methods</b> Practical demonstrations</p>
<b>K2</b>	Critically appraise complex and conflicting theories, concepts and principles relevant to networking and security	
<b>K3</b>	Critically evaluate with primary and/or secondary data and, where appropriate, information security systems in order to troubleshoot unpredictable and complex networking problems	
<b>K4</b>	Analyse and evaluate the impact of ethical and legal issues across the information security field	

3A. Knowledge and understanding	
	Presentations Report Viva Dissertation/practical project Exam Literature Review

3B. Cognitive skills	
Learning outcomes:	Learning and teaching strategy/ assessment methods
<b>C1</b> Appraise, evaluate and synthesise, data/evidence from appropriate sources to make independent judgements with relevance to the networking and security sector.	As above
<b>C2</b> Question conventional approaches across the computing fields using balanced logical and supported arguments	
<b>C3</b> Demonstrate intellectual flexibility and openness to new ideas within the networking and security industry	
<b>C4</b> Define complex networking and computing problems and the application of appropriate knowledge, tools/methods to their solution.	

<b>3C. Practical and professional skills</b>		
<b>Learning outcomes:</b>		<b>Learning and teaching strategy/ assessment methods</b>
<b>P1</b>	Operate in complex and unpredictable networking and security contexts, requiring selection and application from a wide range of standard or innovative techniques within the networking and security sector.	As above
<b>P2</b>	Act autonomously with limited supervision or direction within agreed guidelines.	
<b>P3</b>	Synthesise a network solution to professional standards	

<b>3D. Key/transferable skills</b>		
<b>Learning outcomes:</b>		<b>Learning and teaching strategy/ assessment methods</b>
<b>T1</b>	Plan, manage and evaluate the acquisition of new knowledge and skills as part of a lifelong learning strategy	As above
<b>T2</b>	Demonstrate both employment potential and ability to manage future professional development	
<b>T3</b>	Communicate clearly, fluently and effectively in a range of styles appropriate to the context	
<b>T4</b>	Select, apply and evaluate appropriate numerical and statistical methods for complex and open-ended tasks	
<b>T5</b>	Select and evaluate software applications for different tasks within the context of the discipline	

#### 4. Programme Structure Level 6

<b>Modules</b>	<b>Core/Optional</b>	<b>Credit points</b>	<b>Compensatable</b>
Project	Core	40	No
Research Skills	Core	20	Yes
Information Security Management	Core	20	Yes
Virtualisation Technologies	Core	20	Yes
Project Management	Optional	20	Yes
Database Administration and Management	Optional	20	Yes

To obtain a BSc Cyber Security and Networking (without honours) students must gain 60 credits by completing Virtualisation Technologies, Information Security Management and Project Management or Database Administration and Management modules.

**Programme Structure**

Overview of structure of the modules across the Academic Year.

Optional Module criteria – Students when choosing options must include:

First Semester: Information Security Management and/or Project Management

Second Semester: Virtualisation and/or Database Administration and Management

Students must undertake three of the optional modules.

This is to ensure that all programme outcomes are assessed

<b>Level 6 – Full Time Structure</b>		
Project Core 40 Credits  All year	Research Skills 1 <sup>st</sup> Semester Core 20 Credits	Project Management or Database Administration and Management 1 <sup>st</sup> Semester Optional 20 credits
	Information Security Management 1st Semester Core 20 credits	
	Virtualisation Technologies 2 <sup>nd</sup> Semester Core 20 credits	
<b>Level 6 – Part Time Structure (18 months)</b>		
First Semester	Information Security Management 1st Semester 20 credits	Project Management or Database Administration and Management 1 <sup>st</sup> Semester Optional 20 credits
	Research Skills 20 Credits 1 <sup>st</sup> Semester	
Second Semester	Virtual Technologies	

	2 <sup>nd</sup> Semester 20 credits	
Third Semester	Project Dissertation 40 Credits 3 <sup>rd</sup> Semester	



## **5. Distinctive features of the programme structure**

- **Where applicable, this section provides details on distinctive features such as:**
- **where in the structure above a professional/placement year fits in and how it may affect progression**
- **any restrictions regarding the availability of elective modules**

**where in the programme structure students must make a choice of pathway/route**

- Student feedback has directly influenced the course timetable. Students informed that their preference would be to attend college one day and evening per week. The course timetable reflects this request, allowing them to work and study at a time that meets their needs.
- The course offers modules which are specific to networking and security - many employers wish to have an employee with specific subject area knowledge.
- The course offers progression for students studying on the FdA Networking and Security course but also offers provision for external applicants who have completed a HND in networking and or security.
- Students can access our Network Academy schemes for additional support and professional courses which could be used to further enhance their skill set, such as Cisco Netacad, Oracle University, EC Council, LPI, ComptiA Partnership, Citrix, VMWare. There is a 70% discount offered to students who wish to complete professional qualifications alongside the BSc.
- In order to gain the professional courses listed students do not have to undertake any additional work as the module content of the BSc modules matches the professional body requirements, thus providing the opportunity to gain dual accreditation.
- Graduates of this programme are extremely employable having both a strong academic background and a range of skills and knowledge which can make an immediate impact in a job role.
- Employers provide positive contributions to the content of the modules thereby ensuring knowledge and skills developed meet industry requirements.
- Past students provide their experiences of undertaking the course to current students and then act as a buddy to appropriate students, helping and supporting them during the course, particularly during the dissertation module.
- Strong supportive student centred environment. Students are supported not only in class and tutorial time but the team offer an open door policy where students can contact personally or via email at all times
- The Project is vocationally based, with students creating a portfolio of work which can be showcased to future employers.

- Students are taken to conferences including IPEXpo and InfoSEC where they are exposed to new technologies, guest speakers and of course the opportunity to network.
- There is an expectation of students to undertake work experience in their holiday periods to add depth to their CV.

## **6. Support for students and their learning**

The award adopts the approach to student learning support as identified in the Scheme programme specification.

- Tailored induction support begins before students arrive with the admissions team, and is reinforced at the detailed induction programme
- A robust communications system functions to give students access to lecturers this includes face to face open door policy, e-mail, the VLE and notice boards
- All necessary information about the programme is provided by means of the student handbook, module handbooks and the VLE.
- Each student is allocated a tutor for regular tutorials and personal development planning. This is implemented in the first term and continued throughout the year of study
- There is a range of learning resources in the Library, supported by specialist staff who provide bespoke study skills sessions for students.
- There is an extensive range of services for students, including support for those with special needs. Pro-monitor is used to log all concerns which is available for the teaching team.
- Students are actively encouraged to form study groups to provide peer support and attend additional workshop sessions to apply theory to practice.
- Students can access e-learning materials to support their modules via the internet and podcasts of lectures on the VLE

## 7. Criteria for admission

A typical offer is likely to be 55% average at Foundation Degree or a Merit profile in a relevant HND, together with a minimum of 2 GCSEs in English and Maths at Grade C or higher.

International qualifications will be assessed against these criteria. Speakers of other languages need to have an IELTS score of at least 6.0 or a recognised level 2 English qualification.

Additional admission requirements – underpinning knowledge is required for any student who wishes to undertake the optional module of Database Administration of data analysis and SQL development.

In the absence of formal learning qualifications applications are welcomed from persons who can demonstrate substantial relevant work experience, including work in a voluntary capacity. There is an interview process involved which may include a written report to assess academic writing ability. The course structure actively supports claims for Accreditation of Prior Learning (APL), Accreditation of Prior Experiential Learning (APEL) though this is likely to be rare and Accreditation of Prior Certificated Learning such as Professional Qualifications.

## 8. Language of study

English

## 9. Information about assessment regulations

Dissertation – Non compensatable

## 10. Methods for evaluating and improving the quality and standards of teaching and learning.

In addition to the Annual Programme Monitoring process the following mechanisms are in operation:

- Peer Review
- Annual Planning
- Peer Observation
- Student module reviews
- Tutor module reviews
- Enrolment and induction reviews
- Course Committee meetings
- Pathway Committee meetings
- Student Pathway meetings

## Annexe 1 - Map of Outcomes to Modules

Level 6 – BSc (Hons) Cyber Security and Networking

Module Name	K1	K2	K3	K4	C1	C2	C3	C4	P1	P2	P3	T1	T2	T3	T4	T5
Project	X	X	X	X	X	X			X	X				X	X	
Research Skills		X	X			X			X			X		X		
Virtualisation Technologies			X				X	X	X		X	X	X			X
Information Security Management		X		X	X	X		X			X					X
Database Administration and Management			X		X		X	X		X		X	X		X	
Project Management			X		X		X	X	X			X	X		X	

## Annex 2 – Map of Teaching and Learning Methods

### Level 6 BSc (Hons) Cyber Security and Networking

Examples – put in your own specific forms	Lectures	Seminars	Tutorials	Practical	Demonstrations	Case studies	Group activities	Guest speakers
Project	X		X	X				
Research Skills	X		X	X	X	X	X	
Virtualisation Technologies	X	X		X	X			
Information Security Management	X	X			X	X	X	X
Database Administration and Management	X			X	X		X	
Project Management	X	X		X	X	X	X	

### Annex 3 – Map of Assessment Methods

#### Level 6 BSc (Hons) Cyber Security and Networking

	Presentation	Literature Review	Practical / Demonstration	Examination	Dissertation/ Practical project	Report	Viva
Project					x		x
Research Skills	x	x					
Database Administration and Management			x			x	
Project Management	x					x	
Virtualisation technologies			x			x	
Information Security Management				x		x	