

Course Aim and Title	BSc (Hons) Cyber Security and Networks
Intermediate Awards Available	DipHE Cyber Security and Networks CertHE Computing
Teaching Institution(s)	University of East London
Alternative Teaching Institutions (for local arrangements see final section of this specification)	None
UEL Academic School	Architecture, Computing and Engineering
UCAS Code	I100
Professional Body Accreditation	
Relevant QAA Benchmark Statements	Computing
Additional Versions of this Course	BSc (Hons) Cyber Security and Networks with Foundation Year BSc (Hons) Cyber Security and Networks with Placement Year
Date Specification Last Updated	March 2019

## Course Aims and Learning Outcomes

This course is designed to give you the opportunity to:

- Develop skills in cyber security, networks and their management
- Develop knowledge and understanding of cyber security and network principles as applied in cyber and physical environments
- Gain technical expertise of cyber threat intelligence, risk management and industry standards relating to cyber security and project management which will enable you to excel in the demanding areas of cyber security
- Develop an awareness of the management, economic, legal, social, professional and ethical issues relating to cyber security and the use of security technologies
- Gain knowledge and understanding of the principles underpinning relevant security technologies and controls
- Study a variety of specialised topics such as information security risk management, security processes and controls and network design, construction, testing, configuration and management
- Learn and work both independently and within groups.
- Develop the necessary study skills and knowledge to pursue further study
- Develop the professional skills necessary for a career in the IT industry

What you will learn:

### Knowledge

- Underlying theories relevant to computer networks and cyber security management
- Principles and techniques of network and cyber security risk management
- A variety of specialised topics such as network monitoring, physical security systems and business continuity within the areas of networks and cyber security

- Industry standards relating to cyber security frameworks, risk management, business continuity and project management
- An understanding of the professional and ethical issues relevant to the field of cyber security and networks

#### Thinking skills

- Approaches to problem solving and decision making
- Evaluation and critical analysis of networks, security policies, security controls and threats using a range of techniques
- Self-appraisal and review of personal practice
- Design and implementation of solutions to practical network and cyber security problems

#### Subject-Based Practical skills

- The application of information security management audit and assurance techniques, security policies, networking protocols and project management techniques
- The use of a range of specialised computer technology such as programming languages, operating systems, networks, databases and security tools
- Techniques for gathering cyber threat intelligence and for managing risks
- The selection of appropriate security controls for the maintenance of cyber security

#### Skills for life and work (general skills)

- Communication skills, such as report writing and presentations
- Time management skills
- Learning and working both independently and in groups

## Learning and Teaching

#### Knowledge is developed through

- Lectures, tutorials and practical sessions
- Directed, guided and general reading
- Knowledge-based activities with feedback
- Online discussions and activities
- Primary and secondary research using a variety of learning resources

#### Thinking skills are developed through

- Reflective activities based upon feedback
- Online discussions and activities
- Successful completion of set assessment tasks
- Self-appraisal and self-evaluation
- Critical evaluation of concepts, assumptions, arguments and data

#### Practical skills are developed through

- The analysis of cyber security attacks and risks
- Use of specialised IT applications such as software development tools and environments, data analysis and penetration testing tools
- The application of information security management techniques and methodologies

Skills for life and work (general skills) are developed through

- Planning activities supported by staff feedback
- Project work
- Working in groups, negotiating responsibilities and by respecting the views of others
- Work experience gained during placements
- Managing time effectively so that deadlines are met

## Assessment

Knowledge is assessed by

- Coursework
- Examinations, both unseen and based on previously supplied case studies
- Presentations and demonstrations

Thinking skills are assessed by

- Coursework
- Examinations
- Assessment tasks requiring critical evaluation
- Self-appraisal of performance
- The use of case studies and scenarios requiring the application of problem solving skills

Practical skills are assessed by

- Practical reports
- Portfolio completion
- Assessment tasks requiring the use of general and specialised IT applications

Skills for life and work (general skills) are assessed by

- Project work
- Group work
- Presentations and report writing

Reasonable adjustments will be made to assessment tasks in the case of students with disabilities and/or particular learning needs so that they are able to participate fully and fairly in the assessment process.

## Work or Study Placements

You will have the option to undertake a yearlong industrial placement during the third year. This placement is normally paid, but note that securing a placement is a competitive process, like any other job, and cannot be guaranteed. The university has links with a number of established employers who can provide UEL students with worthwhile work experience. Past experience has shown that a number of students are offered permanent employment by their placement organisation when they graduate. In addition to enhancing employment prospects, the yearlong placement provides a valuable learning experience, the results of which feed into our students' final year of study including their project.

It is ultimately your responsibility to secure a placement. If you are unable to secure a

placement, you will be transferred back to the course without the placement component.

In addition to the optional, yearlong placement, you will complete a work-based learning module in the second term of your second year of study. During this module, you will undertake 70 hours of work-based learning which will provide you with opportunities to apply many of the skills and the knowledge acquired during the first half of your degree course.

## Course Structure

All courses are credit-rated to help you to understand the amount and level of study that is needed.

One credit is equal to 10 hours of directed study time (this includes everything you do e.g. lectures, seminars and private study).

Credits are assigned to one of 5 levels:

- 3 Equivalent in standard to GCE 'A' level and is intended to prepare students for year one of an undergraduate degree course.
- 4 Equivalent in standard to the first year of a full-time undergraduate degree course.
- 5 Equivalent in standard to the second year of a full-time undergraduate degree course.
- 6 Equivalent in standard to the third year of a full-time undergraduate degree course.
- 7 Equivalent in standard to a Masters degree.

Courses are made up of modules that are credit weighted.

The structure of this course is indicated in the table below:

<b>Level</b>	<b>Module Code</b>	<b>Module Title</b>	<b>Credit Weighting</b>	<b>Core/Option</b>	<b>Available by Distance Learning? Y/N</b>
4	CN4000	Information Systems Modelling & Design	20	Core	N
4	CN4001	Software Development	20	Core	N
4	CN4002	Computer Systems and Networks	20	Core	N
4	CN4003	Web Technologies	20	Core	N

4	CN4004	Maths for Computing	20	Core	N
4	CN4005	Mental Wealth; Professional Life 1 (IT Project Pitching)	20	Core	N
5	CN5000	Database Systems	20	Core	N
5	CN5010	Cyber Security	20	Core	N
5	CN5009	Mental Wealth; Professional Life 2 (Computing in Practice)	20	Core	N
5	CN5008	Systems Administration	20	Core	N
5	CN5002	Data Communication and networks	20	Core	N
5	CN5003	Information Systems, Strategy and Management	20	Core	N
P	t.b.c.	Placements	120	Option	N
6	CN6000	Mental Wealth; Professional Life 3 (Project)	40	Core	N
6	CN6001	Enterprise Architecture and Cloud Computing	20	Core	N
6	CN6004	Project Management	20	Core	N
6	CN6002	Business Continuity Planning	20	Core	N
6	CN6010	Advanced Topics in Cyber Security and Networks	20	Core	N

Additional detail about the course structure:

A core module is a module which a student must pass (i.e. been awarded credit) in order to achieve the relevant named award. An optional module is a module selected from a range of modules available on the course but which is not a requirement for the named award.

The overall credit-rating of this course is 360 credits. If for some reason you are unable to achieve these credits you may be entitled to an intermediate award. The level of the award will depend upon the amount of credit you have accumulated. You can read the University Student Policies and Regulations on the UEL website for further details.

## Course Specific Regulations

None

## Typical Duration

The expected duration of this course is three years full-time or four years with a yearlong placement between the second and final year.

A student cannot normally continue to study a course after 4 years of study in full time mode (5 years with a yearlong placement) unless exceptional circumstances apply and extenuation has been granted.

## Further Information

More information about this course is available from:

- The UEL web site ([www.uel.ac.uk](http://www.uel.ac.uk))
- The course handbook
- Module study guides
- The UEL Manual of General Regulations (available on the UEL website)
- The UEL Quality Manual (available on the UEL website)
- The School of Architecture, Computing and Engineering's web pages

All UEL courses are subject to thorough course approval procedures before they commence. We also constantly monitor, review and enhance our courses by listening to student and employer views and the views of external examiners and advisors.

Additional costs:

There are no additional costs associated with the study of this course. All the software and hardware required by students to study this course is available on campus, free of charge. In addition, the School of Architecture, Computing and Engineering has negotiated agreements with a number of software vendors which permit the installation of software on computers owned by students at no cost to the students.

## Alternative Locations of Delivery

None