MSc Cyber Security Technology
with Advanced Practice

London Campus

Level of study: Postgraduate

Mode of study: Full-time

Duration: 16-24 months

Overview

This programme has been designed for those who have an undergraduate degree in any discipline who wish to study for a qualification which focuses on cyber security in order to develop a career path in this discipline. The MSc in Cyber Security Technology is ideally suited to those who have no prior learning in cyber security, the modular content is reflective of this strategy.

This Masters programme has been designed in consultation with partners from industry to ensure you learn up-to-date cyber security knowledge required by employers across the industry. Graduates from the programme will be equipped to work in a variety of careers at an entry or junior level in the cyber security sector and IT industry or to progress to academic or research-orientated careers.

The Advanced Practice option integrates an Internship, Group Consultancy Project or Research Project into the Masters programme, offering the opportunity to spend three months gaining all-important work experience and employability skills in a professional work setting.

Key facts

. Enhance your theoretical and applied knowledge expertise in the rapidly growing cyber security industry

. Demonstrate your security capabilities in important, emerging technologies such as the cloud and big data

. Develop your business intelligence and leadership capabilities

The Advanced Practice includes an Internship, Group Consultancy Project or Research Project, enhancing your employability with all-important work experience. Upon graduating, opt to further develop your skills and employability with Professional Pathways programmes through one of the UK's leading IT and project management training providers.

Course information

Level of study: Postgraduate

Fees: To find out about current fees and student finance contact us

Entry requirements: 2.2 (second class) honours degree or equivalent IELTS 6.5 (or above) with no component less than 5.5 .

English language requirements: IELTS 6.5 with no component less than 5.5

Mode of study: Full-time

Duration: 16-24 months

Assessment methods: Coursework

Scholarships or bursaries: available

Student finance: available

Payment plan: available

Starts: Jan, Sep, May,

About this course:

What will I study?

By completing the MSc in Cyber Security Technology you will be able to demonstrate capabilities in the areas of the Digital Leadership, Information Governance and Cyber Security, Cloud and Big Data Security, Introduction to Computer Networks Security, Computer Network Security, Research Methods for Professional Practice and Computing and Digital Technologies Project.

This programme is also available as MSc Cyber Security Technology which lasts for one year. Alternatively, you can study the MSc Cyber Security Technology Part-Time.
The modular content has been designed to allow you to develop both a theoretical and applied knowledge of core specialisms essential for a cyber security expert. For example, the digital leadership module is designed to support future career progression into roles where there is a requirement to manage other cyber specialists. It also provides a useful foundation for those seeking to pursue a career in cyber security in a role where you are required to perform security vulnerability assessments and penetration testing for networked information systems. Knowledge gained from studying the programme will enable you to conduct threat intelligence analysis to keep up to date with the changing threat landscape.

As you progress through the programme you develop as an up to date, well rounded and outward looking professional capable of taking responsibility for and effectively leading cyber security and technology projects and people, capable of making good decisions and improving the performance of yourself, your people, your areas of responsibility and your organisation.

Advanced Practice stage

The Advanced Practice version of this course offers you a valuable opportunity to secure a 12-15 week internship, Group

Consultancy Project or complete a Research Project, giving you experience of the workplace environment or live computing issues, and an excellent way to put your learning into practice.

This stage of the programme will take place between your second and final semester, and is a semester long (15 weeks) in duration.

The full duration of your programme will depend on your start date:

September start dates: your programme will last up to 21 months. You will have a summer break after Semester 2, and commence your Advanced Practice stage in September.

January start dates:your programme will run for 24 months. You will commence your Advanced Practice stage in the following January. Please note there are two summer breaks included in this programme for those starting in

January.

May start dates: your programme will run for 16-18 months. There is no summer break included in this programme for those starting in May. Your Advanced Practice stage will commence in January.

How will I be taught and assessed?

You'll be taught by experienced lecturers and academics who use their industry and research experience to demonstrate how the theories, tools, technologies and methods you will learn on the programme translate in to real life situations.

Teaching will take place in a mix of lectures, workshops, labs, seminars and tutorials, totalling between 10-12 hours per week. You will also be expected to engage in independent study involving directed and self-directed learning, between 30-32 hours per week.

Technology Enhanced Learning (TEL) is embedded throughout the course with tools such as the 'Blackboard' eLearning Portal and electronic reading lists that will guide your preparation for seminars and independent research. Computer labs equipped with software are also used for practical sessions.

The programme is 100% assessed through coursework, including critical report writing, portfolio, projects and a physical artifact such as a programme or a database.

Careers and further study

This master's programme has been designed to ensure that graduates from the programme will be equipped to work in a variety of careers in the cyber security/IT industry or to progress to academic or research-orientated careers. Indeed, the qualification is designed to accelerate your skills and competence in a range of job roles, including roles in leadership and management in IT, Cyber Security Engineer, Cyber Security Analyst, Cyber Security Consultant, IT Security and Support Manager, Information Security professional, Business Analyst. Upon successfully completing your course, you may undertake further professional development and training through Professional Pathways programmes.

Entry requirements

Applicants should have the following:

Academic requirements

. Minimum 2:2 (second class) honours degree from a UK university or equivalent

Professional qualifications with equivalent standing which had a significant requirement for academic study, may also be considered.

If you don't meet the academic requirements Applicants who do not meet the academic requirements but who do have substantial experience of working in a business organisation and/or possess a relevant professional qualification will also be considered. If you are unsure if you meet the entry criteria, please contact us and our team will be able to advise you. Alternatively, you may also be eligible for our Pre-Masters courses. These are pathway programmes designed specifically for students who are looking to progress on to a Masters degree.

English language requirements

Students require IELTS 6.5 (or above) with no single element below 5.5 or equivalent.

If you have IELTS 5.5 – 6.0, you may be eligible to join our Pre-Sessional English before starting this programme.

Modules

All modules on this course are core.

Information Governance and Cyber Security (20 credits)

In this module you will learn about the information governance and cyber security principles that underpin the management of an organisation's information assets. In doing so you will critically analyse the key concepts, theories, standards and frameworks of information governance and security, including risk management. This will enable you to evaluate an organisation's or the one in which you work, their current approach to information governance and cyber security and to advise on the design and implementation of an appropriate strategy for managing an organisation's information assets to meet legal, regulatory, organisational and/or societal needs for information governance and cyber security.

Leadership in a Digital Age (20 credits)

In this module you will develop new knowledge and skills in leadership in a digital context. These capabilities are essential for your career development as they enable you to become competent at the visioning, development and deployment of technological strategies and responses to challenges and opportunities in complex organisational environments.

Big Data and Cloud Security (20 credits)

This purpose of this module is to provide you with an in-depth understanding of cloud and big data security. This module is a specialist module and as such will develop your skills in a variety of aspects of cloud

security, these capabilities are becoming increasingly desirable by employers as more organisations use the cloud for storing sensitive data.

Computer Networks and Security (20 credits)

The module aims to introduce you to the role and internal operation of computer networks. You will learn relevant concepts and technologies at a layer's level, and the demands placed upon computer networks and security requirements required to successfully support current and emerging applications.

This module provides you with a critical appreciation of computer networks and security. You will learn about the underpinning networking concepts and security consideration to design and implement a secure network using appropriate technologies.

Computer Security (20 credits)

The module builds on 'Introduction to Computer Networks Security' and aims to provide you with a deeper understanding of critical computer security techniques and in-depth knowledge of countermeasures. You will learn relevant cutting-edge computer security principles, models and terminologies require to secure modern computers.

Research Methods for Professional Practice (20 credits)

This module is designed to ensure you have the skills and knowledge to complete a postgraduate research project which is relevant to Computing and Technology and career or future aspirations. As such, in the early part of your studies you will work closely with careers and professional development specialists to consider your career or future learning opportunities post completion of your degree. You will subsequently develop a career plan and reflective log considering how your learning from the programme can accelerate the achievement of this plan. To further prepare you for this final research project, this module will familiarise you with the nature of research and project management and the processes involved.

Research approaches and methods will be covered, including literature evaluation and review. In this module, you will additionally explore and use a number of tools and techniques that are in use in the field of project management to ensure that projects are completed successfully.

Academic Language Skills for Computer and Information Sciences (0 credits)

The aim of this module is to support your study, language and communication skills for academic purposes in the study in your chosen discipline. The module is designed to enable you to become and independent learner. The module is supported by a teaching and learning plan which outlines the formal sessions, together with the tutor-directed study and independent reading. Interactive seminars will be tailored to address some of the specific issues that you meet within your discipline. Directed learning will require a range of activities including pre-reading, preparation for interactive activities and use of the e-learning platform. You will be expected to identify those skills which you need within your programme, and to develop these independently through a range of learning activities that might include extended reading, and reflection.

Engineering and Environment Advanced Practice (60 credits)

The Advanced Practice module is designed to deepen your knowledge and enhance employability in your specialist field. The module provides you with the option to either undertake a work placement, complete a group consultancy project or join a research group for one semester as part of your programme.

This experience gives you the opportunity to apply skills and knowledge acquired during the taught part of your programme and to acquire new skills and knowledge in an alternative learning environment. Specific learning will be defined in a personal learning contract.

You will have the option to complete one of the following:

. A Group Consultancy Project

. An Internship

. Research project

Computing and Digital Technologies Project (60 credits)

The aim of this module is to enable you to undertake a substantial academic research project at Masters level and present the results from this work in both written and oral forms. Your project itself will be a major piece of independent and original research centred at the forefront of your programme discipline within the wider sphere of the computer science and digital technologies field.

You will experience the full life cycle of a research project from initial conception and development of a research proposal, through a critical review of the literature, planning, design, implementation and analysis of your main research project, to final evaluation, reflection and dissemination. You will be expected to consider and address the professional, ethical, legal and social issues related to this academic research project. You will also be expected to apply your expertise, project management and practical skills within your particular domain of computer science and digital technologies and demonstrate critical and innovative thinking and problem solving within a research environment.

Please note that your tuition fees do not include the cost of course books that you may choose to purchase, stationery, printing and photocopying, accommodation, living expenses, travel or any other extracurricular activities. As a London Campus student, you will have full access to our online digital library with over 400,000 e-books and 50,000 electronic journals.
The modules you will study do not require you to purchase additional textbooks although we recommend you allow an additional £200-250 for the duration of your studies should you choose to purchase any additional reading materials.