Northumbria University NEWCASTLE | Newcastle London Amsterdam

MSc Cyber Security Technology with Advanced Practice

London Campus

Level of study: Postgraduate

Mode of study:

Duration: 16-24 months

Response to Covid-19: Our focus is on providing a safe and welcoming learning environment and ensuring continued access to learning.

As a result of the coronavirus (Covid-19) pandemic and resulting social distancing requirements, we are intending to teach this course using a mix of on-campus and online learning activities. We continue to be guided by the Government to ensure our campus is Covid-secure. More information about our response to Covid-19 and FAQs are available here.

All information is accurate at the time of sharing. Courses starting in 2021 are offered as a mix of face to face and online learning. We continue to monitor government and local authority guidance in relation to Covid-19 and we are ready and able to flex accordingly to ensure the health and safety of our students and staff. Contact time is subject to increase or decrease in line with additional restrictions imposed by the government or the University in the interest of maintaining the health and safety and wellbeing of students, staff, and visitors, potentially to a full online offer, should further restrictions be deemed necessary in future. Our online activity will be delivered through Blackboard Ultra, enabling collaboration, connection and engagement with materials and people.

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 the 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
- Northumbria University is recognised as a Centre of Excellence in Cyber Security Research (ACEs-CSR) by the National Cyber Security Centre
- 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, QA

Course information

Level of study: Postgraduate
Fee (UK/Home): £11,400
Fee (International): £19,000
Entry requirements: 2:2 honours degree, or equivalent in any subject IELTS 6.5, with no single element below 5.5, or equivalent .
English language requirements: IELTS 6.5, with no single element below 5.5 or equivalent
Mode of study:
Duration: 16-24 months
Assessment methods: Coursework
Scholarships or bursaries: available
Student finance: available
Payment plan: available
Starts: Jan, May, Sep,

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 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 the 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.

The programmes are structured as below:

	Sept-Jan	Jan-May	May-Sept	Sept-Jan	Jan-May	May-Sept	Sept-Jan
September starts	Semester 1	Semester 2	Summer break	Advanced Practice stage	Final semester		
January starts		Semester 1	Summer break	Semester 2	Advanced Practice stage	Summer break	Final semester
May starts			Semester 1	Semester 2	Advanced Practice stage	Final semester	

How will I be taught and assessed?

- Teaching is delivered through a mix of lectures, workshops, labs, seminars and tutorials, totalling between **10-12 hours per week.**
- You re expected to engage in independent study and self-directed learning, around **30-32 hours per week.**
- The programme is 100% **assessed through coursework**, including critical report writing, portfolio, projects and a physical artefact such as a programme or a database.
- Taught by **experienced lecturers and academics** who use their industry experience to demonstrate how theories translate into real-life situations.
- **Technology-enhanced** learning is embedded throughout the course to guide your preparation for seminars and independent research
- Benefit from **weekly academic support sessions** designed to build your ability and confidence as an academic learner
- You will be assigned a **guidance tutor** at induction who you will meet with regularly during your studies

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.

The qualification is designed to accelerate your skills and competence in a range of job roles, including:

- 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. These are offered to our graduates for free, from our partner, QA. Find out more about Professional Pathways and your eligibility.

Enquire now

Related reading

Cyber Security reading:

- Threats to Information Security 2019
- The State of Cyber Security
- 11th International Conference on Global Security, Safety and Sustainability
- High Flying Jobs in Cyber Security
- The 11%; Where are the Women in Cyber Security?
- Popular Course: Cyber Security

Advanced Practice:

- Master Your Future: MSc with Advanced Practice
- What is a 'Masters with Advanced Practice ?
- Infographic: The Stages of a Masters with Advanced Practice
- Studying a Masters with Advanced Practice

Entry requirements

Academic requirements

- Minimum 2:2 honours degree from a UK university or equivalent, in any subject
- 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.

Please visit our entry requirements page for country-specific qualifications.

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.

Enquire now

Modules

All modules on this course are core and 20 credits unless otherwise stated.

Information Governance and Cyber Security

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

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

The 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

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 considerations to design and implement a secure network using appropriate technologies.

Computer Security

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

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 an 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 the 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.

Enquire now

Fees and finance

Tuition fees 2021/22

- **UK/Home students:** £11,400
- **International students:** £19,000

Tuition fee 2022/23

- **UK/Home students**: £12,075
- **International students:** £19,500

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 Northumbria University 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.

What's included in your tuition fees?

Your tuition fees cover far more than your time in class with our expert academics, it covers the cost of providing you with excellent services and student experience.

- Contact time in class – typically in lectures, seminars and tutorials

- Access to facilities, including computers, on-campus Wi-Fi, printers, vending machines, quiet study spaces
- The support of our Careers & Employment Service who help you to become more employable, secure placements and run workshops
- Academic support – our ACE Team run multiple sessions on academic writing, presenting, exam techniques throughout the semester, as well as 1-2-1 appointments and drop-in sessions
- Student support services such as our Ask4Help Service. Find out more about the services available to you on our Student Support page
- Access to online resources, including 24/ 7 Library with over 400,000 e-books and 50,000 electronic journals.

Scholarships and bursaries for international students

Depending on the country you are from, you may be eligible for a country bursary and/or scholarship when studying the MSc Cyber Security Technology with Advanced Practice programme.

All of our scholarships and bursaries are automatically applied when we process your application and one of our team will be able to confirm your eligibility.

Scholarships and bursaries

Payment plans for self-funded students

If you need support to spread the cost of your tuition, you may be eligible for our payment plan.

Payment plans

Government Loan for Masters study

If you are a UK or Home student, you may be eligible for a postgraduate loan of up to £10,000+ from the UK Government. Click here to find out more about the loan and whether you are eligible to receive it.

Postgraduate Loan

How to apply or find out more

How to find out more

Enquire now to find out more information about the course, studying with us, the application process, and to ask any other questions you may have.

Enquire now

How to apply

Once you re ready to apply, you can apply online to study the MSc Cyber Security Technology with Advanced Practice. This method allows you to upload your supporting documents at the time of application and automatically receive your

student application number.

Apply online

If you re unable to apply online, then you can download a PDF application form and send it to london.admissions@northumbria.ac.uk.

We strongly recommend that you submit your application as early as possible to allow you to complete all of the preparations needed to study your programme. Please refer to the Dates and Fees page.

Supporting documents

For us to assess your application in a timely manner, it is important that you provide us with the following documents:

- Fully completed application form
- Personal email address must be included on the application form
- Transcripts and/or certificates (including a certified translation if not in English)
- Passport – copy of personal details page
- Proof of financial sponsorship if applicable
- Details of two referees
- Confirmation of immigration history including copies of previous and current visas if applicable
- An attached CV is desirable

You can check more information on how to apply here, including guidelines for the application forms.