Master of Science
Cybersecurity

Designed to address the widening skills shortage in Cybersecurity, this programme delivers content that follows best practice in industry.

ONLINE

This programme is delivered exclusively online.

Contact us

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This master's programme is unique as it's 100% Cybersecurity. All modules are security focused, 100% relevant and exactly what industry requires.

The programme was designed with experts from leading Cybersecurity companies. Modules include Network Security and Network Forensics, Penetration Testing, Security Management & IT Law, Digital Forensics & Incident Response, Scripting for Automation, Applied Cryptography, Malware Investigations, Malware Reverse Engineering, Data Analytics, Cloud Security, Embedded Security, Software Security and Threat Intelligence.

Hands-on labs are provided through MTU Cork's private cloud, giving students 24/7 access to state-of-the-art Cybersecurity labs.

Upon successful completion of the MSc in Cybersecurity programme, the graduate will both understand and have the capacity to deploy many of the most advanced methods and systems to protect information at rest, in transit, and at work. Graduates may also wish to continue to PhD level in this exciting field of study.

MTU
Ollscoil Teicneolaíochta na Mumhan
Munster Technological University

Department of Computer Science

The Department of Computer Science at MTU Cork is one of the largest Computer Science departments in Ireland. We offer a range of modern undergraduate programmes and a host of opportunities at master's degree and at PhD level.

Our industry engaged programmes match the needs of our economy and have an excellent reputation for producing the most employable computer science graduates in the region. These highly skilled graduates are in huge demand and contribute significantly to the development of the region. As technology plays a greater role in our society the growth in the demand for these graduates will continue year after year.

Background

Cybersecurity can be defined as the protection of information and information systems from unauthorised access, use, disclosure, disruption, modification, or destruction in order to provide confidentiality, integrity, and availability. Today, cybersecurity is becoming a function of increasing importance for the continued operation of commercial entities.

The increasing level of interconnectedness of information networks and the reliance of business models on this interconnectedness has resulted in a network (currently the Internet) that has over a yottabyte of information stored, much of which is unsecured. This continuing trend is predicted to strongly increase the importance of cybersecurity within most multinational entities.

Cybersecurity (MSc)

The MSc in Cybersecurity programme has a strong applied emphasis which is supported by in-depth theoretical knowledge. The programme was developed with significant input from industry's leading Cybersecurity experts.

Designed to address the widening practical and theoretical skills shortage in Cybersecurity the programme delivers content that follows best practice in industry. The continuing trend of skills shortage in this area is predicted to increase the global demand for Cybersecurity graduates.

Who Should Apply?

Are you interested in a career in cybersecurity? Do you hold an honours degree in Computer Science, Engineering or in a cognate discipline? If so, this master's degree is the right choice for you.

Programme Structure

The programme places significant emphasis on student learning by doing. It adopts a practical, hands-on, approach to learning, where all modules are fully assessed using continuous assessment methods. There are no formal end of semester written examinations and this ensures that you will learn by doing from the first module to the last.

This 90-credit online programme is delivered over 24-months. Each semester has a number of mandatory modules and a choice of electives as outlined below.

Semester 1 (Autumn - Year 1)	Type	Credits
Network Security & Forensics	Mandatory	10
Scripting for System Automation	Mandatory	5
Malware Investigations	Elective	5
Distributed Ledger Technology	Elective	5
Elective from another Masters	Elective	5

Semester 2 (Spring - Year 1)	Type	Credits
Offensive Security	Mandatory	10
Applied Cryptography	Mandatory	5
Malware Reverse Engineering	Elective	5
Fraud & Anomaly Detection	Elective	5
Elective from another Masters	Elective	5

Semester 3 (Autumn - Year 2)	Type	Credits
Security Management and Law	Mandatory	10
Incident Response & Forensics	Mandatory	10

Semester 4 (Spring - Year 2)	Type	Credits
Research Project	Mandatory	30

Module descriptors can be viewed at https://cs.cit.ie/cyber-online-schedule.
You can apply for the programme online at https://cs.cit.ie/security-online.
Recognition of Prior Learning information is available at https://www.cit.ie/rpl.