

Information Security (MSc)

Information security 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, Information Security is becoming a function of increasing importance for the continued operation of commercial entities.

The MSc in Information Security 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 Information Security experts.

Designed to address the widening practical and theoretical skills shortage in Information Security 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 Information Security graduates.

Who Should Apply?

Are you interested in a career in Information Security? 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 programme is delivered over two 30 credit taught semesters. Each taught semester has a number of mandatory modules and a choice of electives as outlined below. The Research Project is started in Semester 2 and completed in Semester 3 over the summer months.

Detailed module descriptors can be viewed under the Computer Science link at <http://courses.cit.ie>.

Semester 1 (Autumn)	Type	Credits
Network Security & Forensics	Mandatory	10
Incident Response & Forensics	Mandatory	10
Scripting for System Automation	Mandatory	5
Cloud Security	Elective	5
Malware Investigations	Elective	5
Data Analytics	Elective	5
Free Choice Module	Elective	5

Semester 2 (Spring)	Type	Credits
Security Management and Law	Mandatory	10
Offensive Security	Mandatory	10
Applied Cryptography	Mandatory	5
Malware Reverse Engineering	Elective	5
Threat Intelligence	Elective	5
Software Vulnerabilities	Elective	5
Free Choice Module	Elective	5

Semester 3 (Summer)	Type	Credits
Research Project	Mandatory	30

In recent years, Cork has emerged as a global cybersecurity hub, with high profile international companies like McAfee, Trend Micro, Sophos, IBM, Cylance, Malwarebytes, AlienVault, FireEye, VMWare, SolarWinds, Qualcomm, eSentire, Keeper Security and NUIX choosing it as a location for their operations.

