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UNIVERSITY OF WOLVERHAMPTON

Malta Further & Higher Education Authority
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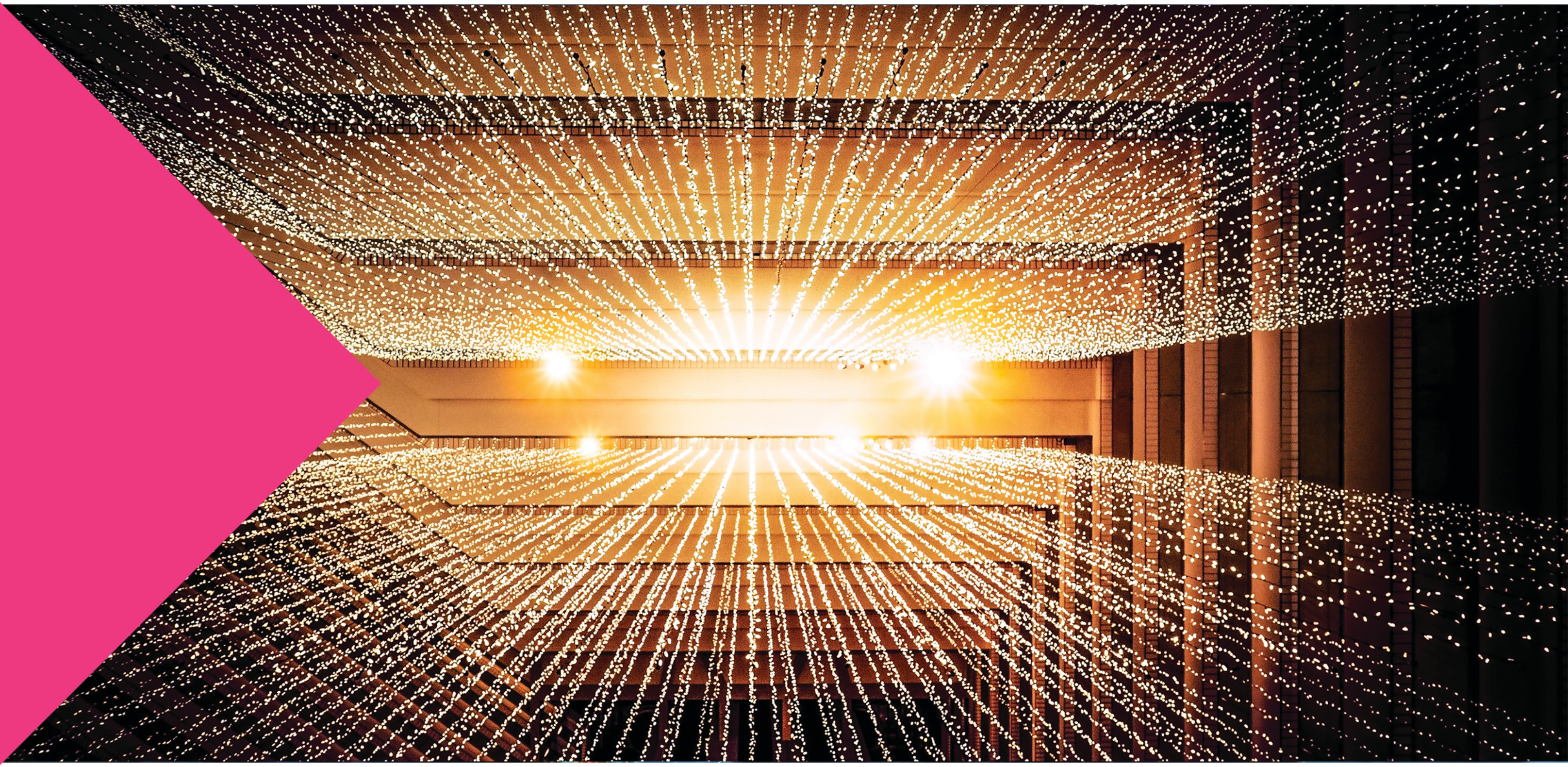

MSc (Hons) Cybersecurity
Level 7

The exponential increase in mobile devices, converged applications and Cloud technologies, initiatives such as Bring your Own Device (BYOD) / Choose Your Own Device (CYOD) and the advent of digital information technologies, has increased the proliferation of threats in our vibrant and active cyber-physical-natural environment diluting further its perimeter.

Our cyberspace is constantly increasing its size almost linearly to its value recognising Cyber Security as a global response to the challenges posed by constantly evolving systems which are harder to secure.

The MSc Cyber Security seeks to address the increasing demand for Cyber Security related domains in both academic, vocational qualifications and projection for an increased shortage of Cyber Security professionals in the industry. The course has been designed by a team of leading experts, researchers and trainers in the field and gives the opportunity to the students to be exposed to cutting-edge technologies, tools and techniques in cyber exploitation and defence.

A wide range of modules are covered within this programme, ranging from Incident Management and Response to Internet of Things Security. Students completing this Master's will be able to contribute to the field of security within organisations of different sizes in Malta and internationally.

Apply now:
stcmalta.com/apply

Study Options
Full Time or Part Time

Duration
1 Academic Year
or 2 Academic Years (Part Time)
360 CATS (180 ECTS)

Assessment
Assessment through examinations and coursework assignments

Entry Requirements
Level 6 Computing Award such as:
BSc (Hons) Cybersecurity or equivalent
English Language Certification

Location
STC Higher Education
Block D, Giorgio Mitrovich Street,
Pembroke, Malta

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on completion MQF Level 7 • UK Level 7

UNLOCK YOUR TRUE POTENTIAL

Your Master's Programme

Ethical Hacking

The purpose of this unit is to provide an in-depth and specialised knowledge on penetration testing and vulnerability assessment. Students will be introduced to Ethical Hacking and the concept of offensive security with cutting-edge tools and research-informed delivery. Students will learn how to look for weaknesses in a target system to test the security posture for exploits in a lawful and legitimate way. This requires a skill set that includes but not limited to computer networks, operating systems but also aspects of psychology and the human behaviour.

Incident Management and Response

Incident management describes methods to identify, analyse, and correct hazards to prevent a future re-occurrence. This unit provides specialised and research-informed knowledge with hands-on practicals on cutting-edge incident response and digital forensics methods. The full life cycle of an incident responder is covered from building a CERT-team to utilising 'sound' forensics tools to collect, safeguard, transport and analyse digital evidence. Students will also be learning about expert testimony and technical topics such as file carving techniques, file systems, network forensics, TCP/IP steganography, memory analysis, in addition to threats associated with emerging technologies such as Internet-of-Things (IoT).

Information Assurance

The module seeks to address the discipline of Information Governance and compliance and its associated theories, practices and principles that govern any modern information system in alignment with multi-disciplinary structures, processes and procedures. Particular focus is given to the frameworks, standards and strategies for managing an organisation's information assets with all the underpinned legal and regulatory requirements need to be fulfilled within existing and emerging Governance, Risk and Compliance (GRC) frameworks.

Internet of Things Security

Motivated by the growing importance of Internet-of-Things (IoT), this module will provide specialised knowledge and hands-on practicals covering IoT devices and applications while focusing on security, particularly in relation to the fundamental underpinning technologies enabling IoT include wireless sensor networks, Wi-Fi, Bluetooth and embedded systems.

Proactive Network Defence

Cyber Defence has become one of the biggest business priorities in an attempt to deal with dynamic attack vectors while still relying on static controls and measures. It is a systematic approach to help organisation to better articulate, manage and change threat thresholds and improve the effectiveness of security controls. This module seeks to address the core principles, methods, tools and products available used in proactive network defence with the aim of preventing cyber-attacks or decreasing the time taken to discover them. The module guides the students through the fundamentals of building and evaluating successful and secure network communication platforms with focus on all strategic, tactical and operational aspects.

Research Methodologies and Project Management

This module introduces students to research and methodologies used to underpin scientific work, data analysis, hypothesis' establishment and artefact validation in understanding research on an appropriate subject discipline. The material in this module is carefully designed to meet students' needs and requirements for the programme of study alongside with essential project management skills dictating research activities. Students will be exposed to a wide variety of tools, techniques, methodologies and processes in the field of project management. This module covers traditional approaches in literature review as essential preparation for the project stage and draws expertise from other departments within the University including Library Services.

MSc Project - CyberSecurity

Students will be expected to develop an idea and demonstrate their ability to develop it further, producing a suitable artefact by applying their technical, analytical, practical and managerial skills in an integrated manner. They are required to emphasise on a topic which sufficiently reflects on the course they are studying and get an ethical approval prior to commencing their work.