# Module Definition Form (MDF)

| Module code: MOD005772 | **Version:** 12 **Date Amended:** 06/Dec/2023 |
|---|---|

| 1. Module Title |
|---|
| Cyber Crime Fundamentals |

| 2a. Module Leader |
|---|
| Ronak Al-Haddad |

| 2b. School |
|---|
| School of Computing and Information Sciences |

| 2c. Faculty |
|---|
| Faculty of Science and Engineering |

| 3a. Level |
|---|
| 4 |

| 3b. Module Type |
|---|
| Standard (fine graded) |

| 4a. Credits |
|---|
| 15 |

| 4b. Study Hours |
|---|
| 150 |

**5. Restrictions**

| Type | Module Code | Module Name | Condition |
|---|---|---|---|
| Pre-requisites: | None | | |
| Co-requisites: | None | | |
| Exclusions: | None | | |
| **Courses to which this module is restricted:** | None | | |

## LEARNING, TEACHING AND ASSESSMENT INFORMATION

### 6a. Module Description

Studying this module will provide you with an introduction to the fundamental principles in the provision of security in IT and networked systems. You will begin with underlying concepts of cybercrime, the latest cyber threats and their implications on the modern world. You will then address specific issues in host systems and networked environments that arise from data being processed, in transit or in storage. You will look at how security design is impacted by confidentiality, integrity and availability and the impact on these from modern cyber threats and vulnerabilities.
You will be provided with substantial support in your learning with a series of theory based lectures and practical implementation through a series of guided laboratory exercises, The module and its assessment represent both an intellectual and practical challenge to understanding the implications of cybercrime in the modern world.

### 6b. Outline Content

Security principles and threats
Introduction to Cyber crime (attacks, malware)
System Security
Network Security (Intrusion detection, network monitoring)
Basic Cryptography
Security in design and implementation
Professional IT and computing bodies
Applications of Security (DRM, online banking, smartcards)
Security Management and Human Aspects
Computer Forensics
Green computing

### 6c. Key Texts/Literature

The reading list to support this module is available at: https://readinglists.aru.ac.uk/

### 6d. Specialist Learning Resources

Students will have access to specialist computer labs equipped with security and networking monitorin gtools, and online resources.

| 7. Learning Outcomes (threshold standards) | | |
|---|---|---|
| **No.** | **Type** | **On successful completion of this module the student will be expected to be able to:** |
| 1 | Knowledge and Understanding | Identify the types of risk that may threaten an IT system. |
| 2 | Knowledge and Understanding | Explain mechanisms that may be used for achieving authentication and access control |
| 3 | Intellectual, practical, affective and transferrable skills | Recommend suitable means of protecting Internet systems and communications for different applications. |
| 4 | Intellectual, practical, affective and transferrable skills | Recognise the need to consider security in system design and implementation activities |

| 8a. Module Occurrence to which this MDF Refers | | | | |
|---|---|---|---|---|
| **Year** | **Occurrence** | **Period** | **Location** | **Mode of Delivery** |
| 2025/6 | ZZF | Template For Face To Face Learning Delivery | | Face to Face |

| 8b. Learning Activities for the above Module Occurrence | | | |
|---|---|---|---|
| **Learning Activities** | **Hours** | **Learning Outcomes** | **Details of Duration, frequency and other comments** |
| Lectures | 12 | 1,2,4 | Lecture 1 hour x 12 weeks |
| Other teacher managed learning | 24 | 1,2,4 | Practical 2 hour x 12 weeks |
| Student managed learning | 114 | 1-4 | Private study |
| TOTAL: | 150 | | |

| 9. Assessment for the above Module Occurrence | | | | | |
|---|---|---|---|---|---|
| **Assessment No.** | **Assessment Method** | **Learning Outcomes** | **Weighting (%)** | **Fine Grade or Pass/Fail** | **Qualifying Mark (%)** |
| 010 | Coursework | 1-4 | 30 (%) | Fine Grade | 30 (%) |
| **In-class test (1 hour)** | | | | | |
| **Assessment No.** | **Assessment Method** | **Learning Outcomes** | **Weighting (%)** | **Fine Grade or Pass/Fail** | **Qualifying Mark (%)** |
| 011 | Coursework | 1-4 | 70 (%) | Fine Grade | 30 (%) |
| **Report (1500 words)** | | | | | |

**In order to pass this module, students are required to achieve an overall mark of 40% (for modules at levels 3, 4, 5 and 6) or 50% (for modules at level 7*).**

**In addition, students are required to:**
**(a) achieve the qualifying mark for each element of fine graded assessment as specified above**
**(b) pass any pass/fail elements**

**[* the pass mark of 50% applies for all module occurrences from the academic year 2024/25 – see Section 3a of this MDF to check the level of the module and Section 8a of this MDF to check the academic year]**