

IC501: MSc Network Security & Management (Part-Time)

1. Introduction

Computer Networks and Network Security, now form the basis for global communications. And the growth in this field has been phenomenal over the last ten years. The MSc Network Security and Management programme is designed to provide graduates with a broad coverage of Computer Networks, Network Security, Cryptography, Computer Forensics, Cyber Laws and related technologies and an in-depth knowledge to design and protect reliable network connectivity.

This programme has been developed in consultation with leading ICT industries in Mauritius and is tailored to the current needs of the industry. Graduates will have the necessary skills to develop a concept through the various network management phases. In addition, graduates will be exposed to the various emerging technologies by means of Guest lectures by experts from the leading ICT industries. The main focus of this programme of study is to specialise students to create new network security solutions, develop secure digital services, build and maintain a secured infrastructure for computer systems.

2. Aims

This programme has been designed to enable students to:

- Acquire in-depth knowledge in computer networks and network security,
- Understand Cyber Laws and Computer Forensics,
- Analyse and understand the complex cryptographic algorithms,
- Understand how to manage and secure information,
- Prepare for an effective career in computer network or network security industries or those wish to carry out study for a PhD.

3. General Entry Requirements

Successful completion of an undergraduate degree with at least a Second Class or 50%, whichever is applicable, or a GPA not less than 2.5 out of 4 or equivalent, from a recognised Higher Education Institution, or alternative qualifications acceptable to the University of Mauritius.

4. Programme Requirements

An undergraduate degree in Computer Science, ICT or other related areas.

5. Programme Duration

The normal duration of the programme will be as detailed below.

	Part Time (years)
Minimum	2
Maximum	4

6. Exit Point

However students wishing to exit earlier, with a Postgraduate Diploma, can do so subject to their meeting the requirements specified in item 7, and completing a minimum of 18 credits of taught modules. The student can also submit a Postgraduate Diploma project carrying 6 credits in lieu of 2 modules of level 2 to a maximum of 6 credits.

The programme will be run on a semester system, where an academic year consists of two semesters.

A semester is of 15 weeks duration (excluding Exam Period).

7. Minimum Credits Required for Award of:

Master's Degree: 36

Postgraduate Diploma: 24

8. Assessment

All modules are of 45 hours duration and carry equal weightage [i.e. of 3 credits] except for ICT 6000 - Project.

All modules will carry 100 marks and will be assessed as follows (unless otherwise specified).

- A written examination of 3 hours duration,
- Continuous assessment carrying a range of 30% to 40% of total marks.
- Module ICDT 6037 Research Methodology, will be on 100% continuous assessment.
- Continuous assessment may be based on laboratory works, and/or assignments and tests but should include at least 1 assignment/test per module.
- An overall total of 40% for combined continuous assessment and written examination components would be required to pass the module, without minimum thresholds within the individual continuous assessment and written examination.

Note: Students are required to register for modules which they intend to follow in a given semester on date(s) specified by the Faculty.

Submission deadline for dissertation should be not later than the last working day (i.e. excluding Saturdays, Sundays and Public Holidays) of May of the academic year.

9. List of Modules

Module Code	Module Name	HRS/WK [L+P]	Credits
Core Modules			
ICT 6001	Internet of Things	2+2	3
ICT 6002	Enterprise Networking	2+2	3
ICDT 6037	Research Methodology	3+0	3
ICT 6004	Cryptography	2+2	3
ICT 6005	Information Security Management	3+0	3
ICT 6006	Network & Cloud Security	2+2	3
ICT 6007	Computer Forensics	2+2	3
ICT 6008	Cyber Laws	3+0	3
ICT 6000	Project	-	12

Note: Guest Lectures will be provided to relevant modules on emerging technologies subject to the availability of the resource persons.

10. Programme Plan

Part Time

YEAR 1							
Semester 1				Semester 2			
Module Code	Module Name	Hrs/Wks L+P	Credits	Module Code	Module Name	Hrs/Wks L+P	Credits
ICT 6001	Internet of Things	2+2	3	ICT 6004	Cryptography	2+2	3
ICT 6002	Enterprise Networking	2+2	3	ICT 6005	Information Security Management	3+0	3
ICDT 6037	Research Methodology	3+0	3	ICT 6006	Network & Cloud Security	2+2	3
Total 18							
YEAR 2							
Semester 1				Semester 2			
Module Code	Module Name	Hrs/Wks L+P	Credits	Module Code	Module Name	Hrs/Wks L+P	Credits
ICT 6007	Computer Forensics	2+2	3				
ICT 6008	Cyber Laws	3+0	3				
ICT 6000	Project	-	-	ICT 6000	Project	-	1
Total 18							
Overall Total 36 credits							