

Master of Science with specialization in Telecommunications and Networks Systems Administration

30 credits

Specific Program Admission Requirements

1. Successfully completed a bachelor's degree in Engineering, Information Systems or Computer Sciences from an accredited university with a minimum GPA of 2.75.
2. Successfully completed an advanced mathematics course at the undergraduate level.

Program Description

The program provides students with an in-depth knowledge of the principles of a Converged Networks including design, implementation, security and management with a strong hands-on approach.

Program Objectives

1. Ability to perform effectively in their profession.
2. Ability to design telecommunications systems and data networks.
3. Ability to implement telecommunications systems and data networks.
4. Ability to design voice or telephony telecommunications systems.
5. Ability to implement and maintain voice or telephone telecommunications systems.
6. Ability to design, implement and maintain voice and data communication systems in the wireless mode.
7. Ability to administer and participate in the decision-making process and business strategic management in the telecommunications area.
8. Ability to keep their competition levels up to date, using continuous training techniques.
9. Ability to solve technical problems within the telecommunications and networks area.
10. Ability to submit plans and produce strategic analysis in the area of convergence of technologies that contribute to the effective positioning of the company.
11. Demonstrate ability to manage telecommunications and network projects.
12. Promote change and development in the specialization area.
13. Establish direction in the development of activities and projects associated with the specialization.
14. Assist the company in the preparation of the strategic and financial plans associated with the establishment of the telecommunications and network infrastructure.

Program sequence will be available at the time of enrollment.
The language of instruction and program delivery modality are subject to availability.

Program Curriculum

Core/ Professional Courses		
Course	Title	Credits
TCOM 500	Applied Mathematics in Telecommunications	3
TCOM 513	Information Technology (IT) Project Management	3
TCOM 503	Introduction to TCP/IP	3
CYBR 501	Network Security I	3
CYBR 502	Computer Security I	3
TCOM 514	Telecommunications Governance I	3
TCOM 606 or TCOM 609	Network Design Project or Thesis	3
Total		21
Elective Courses (Student must select one of the tracks – 9 credits)		
Course	Title	Credits
Internet		
TCOM 511	Internet Technologies	3
TCOM 512	Introduction to Networks	3
TCOM 521	Networking Fundamentals	3
TCOM 556	IP Tel & Design and Implementation of Voice Networks	3
TCOM 523	Wireless Networks	3
Network Securities		
CYBR 521	Network Security II	3
CYBR 522	Computer Security II	3
CYBR 600	Cyber Security Forensics	3
Telecommunications Governance & Auditing		
TCOM 515	Telecommunications Governance II	3
TCOM 522	Telecommunications Management and Policy	3
TCOM 524	Technological & Scientific Innovation	3
Total		9
Total credits		30