

## **Master of Science with specialization in Telecommunications and Networks Systems Administration**

**Credits: 30**

### **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 Outcomes**

1. Analyze theories, methods, and interpretations, and apply research and technical skills in the discipline to develop projects within the field of Telecommunication and System Administrator.
2. Apply professional standards and ethical behavior in the analysis of legal information and procedures for the decision making of the organization.
3. Demonstrate a broad technical expertise in communications, data networks, and other relevant components in the profession throughout the creation, development, and management of assign projects related to the profession.
4. Demonstrate ability to administer and participate in the decision-making process and business strategic management in the telecommunications and system administration area.
5. Submit plans and produce strategic analyzes in the area of convergence of technologies that contribute to the effective positioning of the company.
6. Assist the company in the preparation of the strategic plans associated with the establishment of the telecommunications and network infrastructure.
7. Apply security principles and best practices in the field of system administration in order to evaluate and assess quality in the profession.

Program sequence will be available at the time of enrollment.

The language of instruction and program delivery modality are subject to availability.



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<b>Core/ Professional Courses</b>			
<b>Course</b>	<b>Title</b>	<b>Credits</b>	<b>Prerequisites</b>
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	All Courses
<b>TOTAL</b>		21	
<b>Elective Courses (Students must select one of the tracks- 9 credits)</b>			
<b>Course</b>	<b>Title</b>	<b>Credits</b>	<b>Prerequisites</b>
<b>Internet</b>			
TCOM 511	Internet Technologies	3	TCOM 503
TCOM 512	Introduction to Networks	3	TCOM 511
TCOM 521	Networking Fundamentals	3	
TCOM 556	IP Tel & Design and Implementation of Voice Networks	3	TCOM 503
TCOM 523	Wireless Networks	3	TCOM 503
<b>Network Securities</b>			
CYBR 521	Network Security II	3	CYBR 501
CYBR 522	Computer Security II	3	CYBR 502
CYBR 600	Cyber Security Forensics	3	CYBR 502
<b>Telecommunications Governance &amp; Auditing</b>			
TCOM 515	Telecommunications Governance II	3	TCOM 514
TCOM 522	Telecommunications Management and Policy	3	TCOM 513
TCOM 524	Technological & Scientific Innovation	3	
<b>TOTAL</b>		9	
<b>TOTAL CREDITS</b>		<b>30</b>	

**Notes:**

1. This program may be offered in English, Bilingual mode (English-Spanish), or Spanish according to the demand. COMPLETING A COURSE OR PROGRAM IN A LANGUAGE OTHER THAN ENGLISH MAY REDUCE EMPLOYABILITY WHERE ENGLISH IS REQUIRED.
2. Graduation GPA: 3.00