
Telecommunications

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Website: <http://www.jmu.edu/cs/minors/telecom-minor/index.shtml>

[Print Version of Catalog](#) ■

Telecommunications

The cross disciplinary minor in telecommunications is designed to augment the student's major program with a package of courses that will prepare the graduate to obtain a position as a telecommunication/network professional and fill a societal need in one of the fastest growing areas of technology.

The program is developed as a minor principally for three major programs: computer science, integrated science and technology (for students not in the telecommunications concentration), and computer information systems. However, the program is open to any undergraduate with some computer background and an interest in telecommunications.

The telecommunications minor will instill knowledge of:

- Telecommunication terminologies, standards, policies and procedures.
- Basics of data transmission, digital signal processes and signaling hierarchies.
- Architectures, communications protocols and components of LANs, WANs and internetworks.
- The TCP/IP and ATM protocol suites.
- Switching, routing and traffic management in inter-networked environments.
- Voice, video and data transmission over IP and ATM.
- Application development for the internet.
- Distributed object systems programming and management.

Students are encouraged to check prerequisites. At most, four courses can be used to satisfy both the telecommunications minor and a student's major requirements.

Required Courses	Credit Hours
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Choose one of the following:	3
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[CIS](#)

[320](#). Telecommunications and Information Processing

[ISAT 360](#). Introduction to Networking and Security

ISAT 460 . TCP/IP Networks	3
ISAT/CS 461 . Internetworking	3
ISAT/CS 464 . Telecom in Public Interest	3
Choose one of the following:	3-4
CS 139 . Algorithm Development	
CIS 221 . Principles of Programming	
ISAT 252 . Programing and Problem Solving	
Choose one of the following:	3
CS 458 . Cyber Defense	
ISAT/CS 462 . Network Applications Development	
ISAT/CS 463 . Network Analysis and Design	
ISAT 465 . Wireless Networking, Security and Forensics	
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