Telecommunications (M.S.)

Master of Science
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Program Overview
Mason Engineering offers a Master of Science in Telecommunications through its Department of Electrical and Computer Engineering. The innovative, interdisciplinary MS in Telecommunications Program is designed from the ground up to prepare students for opportunities in region's internet-based industry. The program emphasizes practical aspects and applications of telecommunications over theory. It combines a solid foundation in modern telecommunications and networking with opportunities for advanced studies in Internet protocols and networking, network technology and applications, network security and forensics, or wireless communications. Most of our advanced classes are taught by seasoned industry professionals with outstanding academic credentials who bring unique real-world experience and practical relevance to the class room. The program aims to launch students on a path to a technical leadership position. It offers a blend of cutting-edge, engineering-oriented courses augmented by systems engineering, legal, and policy aspects of modern communications systems. The interdisciplinary program is intended both for students who plan to enter the field of telecommunications and for professionals who are already working in the field and want to advance their knowledge. Students in the MS in Telecommunications program will take the majority of their courses in engineering and technology-oriented courses. In addition, courses that address systems, policy, or legal aspects of telecommunications prepare students to succeed in a management role.

Program Highlights: The Telecommunications program offers hands-on courses in networking in a dedicated lab facility; Our highly experienced faculty, drawn from the region’s hi-tech industry and government organizations, brings real-world experience and practical realism to the classroom; A large, and growing number of courses in the Telecommunications program are offered as distance education courses to support the needs of working professionals.

Program Requirements
The Master of Science in Telecommunications requires a minimum of 30 graduate-level credits. The program begins with 9 credits of required core course work:

- Modern Telecommunications
- Data Communications and Local Area Networks or Internet Protocols
- Wide Area Networks and Internet or Advanced Internet Protocols
- Systems Engineering for Telecommunications Management

This is augmented by 6 credits of electives drawn from an interdisciplinary group of core courses and a pair of hands-on laboratory courses.

The remaining 15 credits allow students to specialize and acquire deep understanding in their selected area of emphasis. The program provides advanced courses in the following specialization areas (specialty modules):

- Network Technologies
- Network Applications
- Wireless Communications
- Network Forensics and Security
Refer to our website for more information on program course offerings and details on program requirements.

Related Programs:
- Computer Forensics, MS
- Electrical and Computer Engineering, PhD
- Information Technology, PhD

Distance Education courses may be available for select programs. Graduate Certificate degree programs may also be offered. Please visit our website for details.

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Admission Requirements
In addition to meeting general university admissions requirements, students must hold a baccalaureate degree in engineering, math, science, computer science, business (with a quantitative background), economics, or other analytical disciplines from an accredited college or university and have equivalent work experience indicating analytical aptitude. Depending on their background, some applicants may be required to complete 3 to 6 credits of preliminary course work before they are allowed to enroll in any of the core courses or specialty courses in the program. A minimum undergraduate GPA of 3.00 is usually required.

Required application materials include:
- Online application and non-refundable fee
- Transcripts showing all post-secondary study
- Professional and Educational Goals Statement
- Two letters of recommendation from professors or senior officials at place of employment
- Resume

Additional application materials, including English proficiency examination scores (e.g., TOEFL, IELTS), are required if the applicant holds a degree from an international institution and/or requires an F-1 or J-1 visa. Visit http://admissions.gmu.edu/grad/ for details.

Special admission programs are available for Volgenau School students and alumni.

Visit our website for details: http://telecom.gmu.edu
Apply online: http://admissions.gmu.edu/grad/applynow/