Information for Prospective Students

Thank you for your interest in the graduate programs in Telecommunications at George Mason University. Below you will learn about the degree programs we offer, the requirements of those programs, gaining admission, and beginning your studies. Please, feel free to contact us if you have additional questions or would like to discuss your specific qualifications and interests with a faculty member in the program. Additionally, the Graduate Admissions Office in the Volgenau School of Information Technology and Engineering organizes Open Houses and other information sessions on a regular basis. Upcoming events are listed on this website and on the Admission Office's calendar of events.

Why study Telecommunications at Mason?

The graduate program in Telecommunications was established in the fall of 2000 in direct response to the region's urgent needs for a workforce with advanced technical skills in everything related to the Internet. Since then, our program has grown to be the largest graduate program in the Volgenau School of Information Technology and Engineering with approximately 100 graduates per year.

The success of our program can be attributed to a number of factors, which in combination create a truly unique educational opportunity. To start, we have created a novel and state-of-the-art curriculum that provides our students with in-depth knowledge of modern telecommunications. Besides a broad base provided by our core curriculum, students have the opportunity for advanced studies in several focus area, including advanced IP networking, security, and wireless communications. In contrast to traditional engineering programs we emphasize practical aspects over mathematical analysis; this allows motivated students without an engineering undergraduate degree to succeed in the program.

The faculty teaching our classes are either well-known, respected researchers or seasoned telecom professionals who bring invaluable practical experience to the classroom. Furthermore, George Mason University is located in the heart of Northern Virginia's high tech region and we are the only major university centered in this region. From the inception of the program, we have enjoyed very good relations with our local industry at many levels. We listen to industry leaders to adapt our curriculum continuously to the rapid changes in the field, many of our faculty work in prominent positions in industry, and many of our graduates find a position and stay in the area. Over the years, we have successfully met the needs of both early-career professional who are aiming for an entry-level position as well as seasoned professionals who are looking to upgrade and validate their skills. Despite its relatively short existence, the program has built an active and growing alumni network. To gain an appreciation for the depth and relevance of material covered by our program, we invite you to peruse the list of courses that we offer regularly. Alternatively, follow the links below for an overview of the program and the process of applying for admission to the program.

Degree and Certificate Programs

The graduate degree programs in Telecommunications and their requirements are described in detail in another section of this site. This introduction to our programs provides an overview for prospective students. Our main academic program is the Master of Science in Telecommunications. This course of study aims to equip students with the required breadth and depth of knowledge in modern Telecommunications to succeed in today's rapidly changing, connected world.

Additionally, we offer several graduate certificate programs which are designed to demonstrate students' competence
in an advanced area of specialization within Telecommunications. Most, but not all, certificates are earned by students pursuing the MS in Telecommunications as part of their degree program.

Graduate Certificates

Graduate certificates are offered to provide students the opportunity to demonstrate advanced competence in an area of telecommunications. All graduate certificates in Telecommunications require 15 credit hours of advanced course work in he respective area of specialization.
Most students earn certificates as part of their MS in Telecommunications, however, it is possible to earn a graduate certificate without also pursuing a Master's degree.
Currently certificates in the following specialization areas are available:

- Certificate in Wireless Communications [8] (CERG-WIRE)

Master of Science in Telecommunications

The curriculum for the Master of Science in Telecommunications can be broadly divided into two components. The core curriculum provides both a broad and solid base of knowledge as well as exposure to essential interdisciplinary topics. The second half of the curriculum is devoted to gaining knowledge and experience in an advanced area of telecommunications. This component is designed to provide students the opportunity to pursue an area of specialization with the broad field of telecommunications. The areas of specialization covered by the program follow largely the areas covered by the graduate certificates we offer.
Core Curriculum
The core curriculum can be further divided into the mandatory core and the elective core. The mandatory core provides little flexibility and ensures that all our graduates have a solid foundation. The mandatory courses requires that students successfully complete the following courses:

- TCOM 500: Modern Telecommunications [9] (3 cr. hrs.)
- TCOM 521: Systems Engineering for Telecommunications Management [10] (3 cr. hrs.)
- TCOM 530: Data Communications Fundamentals (3 cr. hrs)
- TCOM 535: The TCP/IP Suit of Internet Protocols (3 cr. hrs)

The decision if a student takes the sequence of TCOM 530 or TCOM 535 depends on the student's prior exposure and experience in the area of data networking and is made in consultation with the advisor.
The elective core component aims to ensure that students have a broad set of skills to succeed as professionals in the Telecommunications field. This component by be satisfied through a combination of courses that provide practical hands-on experience, exposure to legal, business, management, or policy aspects of telecommunications. To satisfy the elective core component, students must take two courses from a list of 3-credit courses that includes

- TCOM 750: Coordinating Seminar [13]
- PUBP 726: Telecommunications Policy and International Strategies
- LAW 181: Telecommunications Law and Regulation
In most semesters, other courses are available that can be applied to satisfy the elective core requirement. Your advisor will be able to let you know of such courses.

Specialization
The specialization part of the program, sometimes referred to as modules, allows the students great flexibility to tailor their course of studies according to their interests. Most students choose their courses to earn one of our certificates in addition to the Master's degree. This is a very reasonable strategy and leads the student to acquire very detailed knowledge in their area of expertise. The program currently provides for specialization in IP networking, network applications, network and computer security, and wireless communications. Other students strive for more breadth and look for advanced knowledge in multiple areas. This is an acceptable strategy as well and fully supported by the program.

In either case, students are urged to develop their plan of study in discussion with their advisor. This is your degree and we want you to derive the most benefit from your studies.

Gaining Admission

Once you have decided to pursue an MS in Telecommunications or one of the graduate certificates, you must apply to be admitted into the program. You should consult the Graduate Admission Office website [14] for detailed information on when and how to apply.

On the following pages, the most important steps in the application process are summarized and any special considerations for the graduate programs in Telecommunications are highlighted. We will focus on applying for admission in regular (degree-seeking) status and comment on special considerations for non-degree applicants and International students.

Admission Requirements

Applicants for the graduate program in Telecommunications must hold a Bachelor's degree from an accredited university or the equivalent from an international university. The undergraduate degree does not have to be in Engineering or other technical discipline; students with undergraduate degrees in areas as diverse as biology, history, or psychology have successfully completed the MS in Telecommunications.

Students should have an undergraduate GPA of 3.0 or better. Occasionally, slight concessions are made with respect to the GPA if the applicant can present mitigating factors, such as relevant work experience in the field. Such factors must indicate that the applicant is very likely to succeed in our graduate program.

Application Deadlines

Application deadlines are set by the Graduate Admissions Office [15], not by the MS in TCOM program. The deadlines for the upcoming semester [16] are published by that office.

Application Documents

Applications for admission to the Telecommunications graduate program must include the following supporting documents.
• **Transcripts**: All applicants must submit two official copies of their transcripts. You must arrange for the universities you attended previously to send those transcripts directly to George Mason University. The transcripts must show that you hold a Bachelor’s degree and are eligible for graduate admission. You should also include transcripts that show any other relevant course work.

• **Goal Statement**: Write a brief essay, approximately one page long, that describes your motivation for pursuing a graduate degree in Telecommunications and why you feel that you are qualified to undertake graduate studies in Telecommunications. Use the goal statement to promote your cause if you feel that your application may have a weakness in another area.

• **Letters of Recommendation**: Three letters of recommendation are required for degree-seeking students. Such letters should reflect on your aptitude for advanced studies in Telecommunications and should be written by a professor or a ranking official at your current or former work place. A strong letter of recommendation carries significant weight in the admissions process. **Download: Recommendation Form.** [14]

• **Current Resume**: Provide a current resume that highlights your qualifications and experience. Like the goal statement, it is an opportunity to demonstrate that you are likely to succeed in our program.

The MS in Telecommunications program does **not** require a GRE. However, a strong GRE score, particularly in the quantitative section, is considered very positively.

### Submitting your Application

It is important that you submit your application for admission in a timely manner. The **exact deadlines** [16] are published by the **admissions office** [15]. Domestic students should have their complete application submitted by Nov. 1 for Spring admissions and by May 1 to begin studies in the Fall semester. Earlier deadlines apply for International students. If you cannot meet these deadlines, you may consider beginning your studies in non-degree status.

Your application is submitted **on-line** [17] and you will be required to pay an application fee. You will also receive detailed information for mailing your application documents. Note that your application will not be reviewed until your application is complete. Therefore it is important that you submit all required documents in a timely manner.

### Applying in Non-degree Status

Admission to graduate study in non-degree status is suitable for those individuals who do not currently wish to pursue a degree or certificate program, but are interested in taking graduate courses that are offered by The Volgenau School of Information Technology and Engineering (500 & 600 Level courses only). Since the application deadline for non-degree seeking applicants is later, this is also an avenue for students who have missed the application deadline for admission in degree-seeking status.

Non-degree students may transfer up to 12 credit hours of coursework to a future graduate degree program. This means, if you are considering to pursue the MS in Telecommunications you must apply for admission in degree status before you have completed 12 credit hours. Note also that only 6 credit hours earned in non-degree status can be transferred into a graduate certificate program.

Students who later choose to seek admission to one of the The Volgenau School graduate degree programs must reapply to GMU for admission to a degree or certificate program. If admitted, the student may request that up to 12 credit hours (6 credit hours for certificate programs) of courses taken as a non-degree student be approved for transfer to a degree program.

The supporting documents for application as a domestic, non-degree student include only your academic transcripts and a current resume. Letters of recommendation and goal statement are not required but may be helpful. Additionally
non-degree students must fill out a course selection form [18] to indicate which course they are planning to register for.

The Volgenau School regularly schedules non-degree open houses at which students can obtain an immediate admissions decision.

**International Students**

George Mason University has a large community of International students and scholars from most countries in the world. If you come to Mason, you will find a university that values cultural diversity and welcomes foreign students.

International students generally need a visa to study in the United States. Also, the review of the academic transcript tends to take a little more time. Consequently, application deadlines for International students are at least one month earlier than those for domestic students. For Spring admission, international students must submit their complete application around October 1. For the Fall semester the deadline is approximately February 15. Please, verify the exact deadlines [16] with the Admissions Office [15].

International applicants must submit the same documents as domestic students [19] and, in addition, they must submit:

- **International Transcript Evaluation:** Transcripts from foreign universities must be translated and evaluated. The university has published guidelines for international transcript submission [20] that you should review carefully.
- **TOEFL:** Required for all students who have not earned at least a Bachelors’ Degree in the: US, Australia, Canada (on an institution-by-institution basis), New Zealand, or the United Kingdom. Minimum scores are: 575 on the paper-based exam, 230 on the computer-based exam (CBT), and 20 in each section with a minimum total of 88 on the internet-based exam (IBT).

Students seeking an F-1 or J-1 student visa must also provide evidence that they have the financial means to study in the US. To do so, they must submit:

- Completed Certificate of Financial Responsibility [21], signed by you and your sponsor,
- An original bank statement in your name or your sponsor’s name demonstrating the minimum required funds for your studies at Mason,
- Copy of the identification page of your passport.

For further information, you should consult the information for International Applicants [22] provided by the admissions office. Additionally, the Office of International Programs and Services [23] is a great resource for International students.

**Admission Decision**

Your application will be reviewed first for completeness in the admissions office. Once your application is complete, it will be forwarded to the Telecommunications program office where a faculty member carefully reads and evaluates each application. Three admissions decisions are possible:

- The students may be admitted to the graduate program in Telecommunications. If the application was for
admission in non-degree seeking status, then the student will be admitted in that status.
• The application may be denied and the student cannot commence graduate studies.
• The admission may be in provisional status. This occurs when the reviewing faculty has concerns about the preparedness of the applicant. In this case conditions will be attached to the admission. These conditions will be spelled out and provided to the student in writing. It is crucial that a student admitted in provisional status follows these conditions in detail. Failure to meet the provisional admission conditions may lead to dismissal from the program. Typically, conditions require a student to take a prescribed set of courses and earn at least a B in each of those courses. Once the student has met the provisional admission conditions, she must initiate the transfer to regular, degree-seeking status [24].

In any case, you will be notified in writing of the admission decision.

Preparing for your First Semester

Once you are admitted to the graduate program in Telecommunications at George Mason University, you are only a few simple steps away from attending your first class.

First of all, be sure to return all required documents to the admissions office to secure your spot. If you find yourself in a situation where you are not quite ready to start your graduate studies, you can defer your admission by one semester. You need to coordinate your deferral with the admissions office.

Selecting Your First Classes

Once you have returned your admissions documents and you have confirmed that you will be attending George Mason University, it is time to choose your initial set of classes. It is a good idea to consult with your academic advisor in this process. There will also be an orientation meeting just prior to the start of the semester where you will receive specific program information and can resolve any lingering questions.

For most students, it is recommended to take core classes during the first semester. The reason for this recommendation is that the core classes are prerequisites for the more advanced, elective classes. Consequently, students in their first semester should plan to take:

• TCOM 500: Modern Telecommunications
• TCOM 521: Systems Engineering for Telecommunications Management.
• TCOM 530: Data Communications Fundamentals
• TCOM 535: The TCP/IP Suite of Internet Protocols

Part-time students will only take one or two of these courses depending on their schedule. The decision whether to take TCOM 530 or TCOM 535 depends on each student's preparedness in the networking area and should be made in consultation with the academic advisor.

Registering and Next Steps

When you have decided on your initial set of classes you can proceed to register for classes. The university uses an automated registration system exclusively. You will receive detailed instructions on how to use this system.
To avoid a late registration penalty you must register for classes before the first day of classes. You will have a short period after the beginning of the semester to change your class schedule. For example, you may have realized that you are not quite ready for a certain class. Specifically, you have one week to add or drop a half-semester (1.5 credit hours) class and two weeks to add or drop a full-semester course.

Once you're settled in and before the registration or the second semester begins, you should meet with your advisor and begin working on your plan of studies [25].

Source URL: http://telecom.gmu.edu/books/information-prospective-students/information-prospective-students

Links:
[16] http://volgenau.gmu.edu/admissions/graduate/application-deadlines
[17] https://app.applyyourself.com/AYApplicantLogin/fl_ApplicantConnectLogin.asp?id=mason-grad
[18] https://volgenau.gmu.edu/documents/10614/10701/Non-Degree_Course_Selection_Form.pdf
[22] http://admissions.gmu.edu/grad/international_students/