MASTER OF SCIENCE IN THE FIELD OF CYBERSECURITY IN COMPUTER SCIENCE (STEM)

This MS program in cybersecurity in computer science is offered by GW's Department of Computer Science. The program was created in response to the large and fast-growing need for technical cybersecurity experts, nationally and internationally. Students acquire up-to-date knowledge and skills in cybersecurity, a field of ever-increasing importance to national security, the economy, and individual users. They also receive a firm grounding in requisite core knowledge in computer science, as well as the ability to take courses in related disciplines.

In this program, students receive individualized attention from world-class faculty, are able to take advanced topics courses along with PhD students, and benefit from evening classes that accommodate the schedules of working professionals. Thesis and non-thesis options are available.

Credit and course sharing with the MS in the field of computer science

With department approval, students who complete the MS in the field of cybersecurity in computer science program, and subsequently enroll in the MS in the field of computer science (p. 1) program, or vice versa, may count the following core courses toward both degrees: CSCI 6212, CSCI 6221, and CSCI 6461.

This is a STEM designated program.

ADMISSIONS

Admission deadlines:	Fall - January 15
	Spring - September 1
	Summer - March 1 (non-F1 visa seeking applicants)
Standardized test scores:	The Graduate Record Examination (GRE) is required of all applicants. (Institution code 5246).
	The Test of English as a Foreign Language (TOEFL) or the Academic International English Language Testing System (IELTS) is required of all applicants except those who hold a bachelor's, master's, or doctoral degree from a college or university in the United States or from an institution located in a country in which English is the official language, provided English was the language of instruction. Minimum scores:
	- TOEFL: 550 on paper-based or 80 on Internet-based; applicants requesting funding consideration must have 600 on paper-based; or 100 on Internet-based
	- Academic IELTS: an overall band score of 6.0 with no individual score below 5.0; applicants requesting funding consideration must have an overall band score of 7.0 with no individual score below 6.0
	- PTE Academic: 53; applicants requesting funding consideration must have 68.
Recommendations required:	Two (2) recommendations required of applicants. If possible, one recommendation should be from your advisor at the institution from which you earned your highest degree.
Prior academic records:	Transcripts are required from all colleges and universities attended, whether or not credit was earned, the program was completed, or the credit appears as transfer credit on another transcript. Unofficial transcripts from all colleges and universities attended must be uploaded to your online application. Official transcripts are required only of applicants who are offered admission.
	If academic records are in a language other than English, a copy in the original language and an English language translation must be uploaded. Transcript evaluations should not be uploaded. Applicants who have earned a degree from an Indian university are required to submit individual semester marksheets.
Statement of purpose:	In an essay of 250 to 500 words, state your purpose in undertaking graduate study at The George Washington University; describe your academic objectives, research interests, and career plans; and discuss your related qualifications, including collegiate, professional, and community activities, and any other substantial accomplishments not already mentioned.
Additional requirements:	Bachelor's degree with a grade point average of at least 3.0 (on a 4.0 scale) in the last 60 hours of coursework.
	All applicants must choose an area of focus that most closely matches their interests and note this on the online application. All applicants must submit a resumé or CV.
International applicants only:	Please follow this link - https://graduate.admissions.gwu.edu/international-student-application-requirements (https://graduate.admissions.gwu.edu/international-student-application-requirements/) - to review the International Applicant Information carefully for details on required documents, earlier deadlines for applicants requiring an I-20 or DS-2019 from GW.

For additional information about the admissions process visit the SEAS Admissions Frequently Asked Questions (https://graduate.engineering.gwu.edu/admissions-frequently-asked-questions/) page.

Contact for questions:

engineering@gwu.edu

202-994-1802 (phone)
202-994-1651 (fax)

Hours: 9:00 am to 5:00 pm, Monday through Friday

REQUIREMENTS

The following requirements must be fulfilled: Thesis option—30 credits, including 12 credits in required courses and 12 credits in elective courses, and 6 credits in thesis; non-thesis option—30 credits, including 12 credits in required courses and 18 credits in elective courses.

At least 24 of the 30 credits required for the degree must be taken at the 6000 level or above. As a rule, any course taken below the 6000 level must be a Computer Science (CSCI) course and must be eligible to be taken for graduate credit according to the course description in this Bulletin. Any course below the 6000 level must receive the prior written approval of the student's faculty advisor.

Program Restrictions

- Students whose admission letter states they are required to take CSCI 6010 and CSCI 6011 are limited to taking EMSE 6540 as their only non-CSCI course.
- Students required to take CSCI 6010 and CSCI 6011 must take the courses in their first semester.
- Students not required to take CSCI 6010 and CSCI 6011 may take up to three non-CSCI courses (9 credits) with the prior written approval of the advisor.

Code	Title	Credits
Required		
CSCI 6212	Design and Analysis of Algorithms	
CSCI 6221	Advanced Software Paradigms	
CSCI 6461	Computer System Architecture	
EMSE 6540	Management of Information and Systems Security	
One of the following applied cryptography courses:		
CSCI 6331	Cryptography	
CSCI 6541	Network Security	
CSCI 6545	Software Security	
One of the following computer science security courses, which cannot be used to fulfill the applied cryptography course requirement:		
CSCI 6331	Cryptography	
CSCI 6541	Network Security	
CSCI 6545	Software Security	
CSCI 6531	Computer Security	
CSCI 6532	Information Policy	
CSCI 6542	Computer Network Defense	
CSCI 6547	Wireless and Mobile Security	
CSCI 6548	E-Commerce Security	
CSCI 6907	Special Topics *	
CSCI 8331	Advanced Cryptography	
CSCI 8531	Advanced Topics in Security *	
Two additional security courses (6 credits) in any school of the University. All computer science security courses listed above that are not used to meet the applied cryptography or computer science security course requirements, as well as the following courses, can be used for this purpose.		
EMSE 6543	Managing the Protection of Information Assets and Systems	
EMSE 6545	Internet and Online Law for Security Managers	
Any other cybersecurity-related course offered by another school of the University must be reviewed and approved in advance by the advisor to ensure it is sufficiently advanced and rigorous to count toward the degree.		
Electives for non-thesis option		
Students who are not pursuing the thesis option, and are not required to take CSCI 6010 or CSCI 6011, can choose any two additional courses (6 credits) numbered 6000 or above as elective courses.		
Thesis option		
Students who choose the thesis option must obtain the written approval of their thesis advisor before enrolling in the following courses:		
CSCI 6998	Thesis Research	
CSCI 6999	Thesis Research	

*Any special topics course taken for credit toward the degree must focus on security or cryptography and be approved in advance by the advisor.

Graduation and Scholarship Requirements

Students are responsible for knowing the university's minimum GPA requirement for graduation and scholarships. Please visit the Graduation and Scholarship Requirements (https://bulletin.gwu.edu/engineering-applied-science/

#graduation_requirements_ms) section on this site to read the requirements.

Students should contact the department for additional information and requirements.