

# Information Security Assurance (M.S.)

Master of Science

<http://cs.gmu.edu/prospective-students/ms-programs/ms-in-information-security-and-assurance/>

Phone: 703-993-1530, [csgrad@gmu.edu](mailto:csgrad@gmu.edu)

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## Program Overview

Mason Engineering offers a Master of Science in Information Security and Assurance through its Department of Computer Science.

The degree satisfies the dual needs of preparing graduates to fill the need for information security and assurance professionals to work in a variety of capacities to protect the information systems of different types of organizations and support the nation's information infrastructure; conduct advanced research in information security and assurance.

Consequently, the degree provides technical knowledge and skills needed to understand information security and provides specialized theoretical knowledge and experimental experience. Students focus on the technical aspects of information security, examining ways to provide secure information processing systems by investigating operating systems security, distributed secure system architectures, software applications security, security policies, network and distributed systems security, cryptography, and security protocols.

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## Program Requirements

Completion of the MS program requires a minimum of 30 approved graduate credits (10 courses). To provide the necessary background in the fundamentals of information security and assurance, three core courses are required of all students:

- Information Security Theory and Practice
- Network Security

One of the following:

- Principles and Practices of Communication Networks
- Computer Communications and Networking

In addition, students must choose one of two concentrations - Network and Systems Security or Applied Cyber Security. Students fulfill the requirements of a concentration by completing five courses from a list of elective courses associated with the concentration.

Refer to our website for more information on program course offerings and details on program requirements.

Related Programs:

- Computer Science, PhD
- Computer Forensics, MS
- Information Technology, PhD

Mason Engineering has been designated a National Center for Research and Educational Excellence in Information Security Assurance.

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# Information Security Assurance (M.S.)

## Admission Requirements

In addition to meeting the general admission requirements of the university, applicants must hold a four-year baccalaureate degree in an appropriate discipline from an accredited institution and have earned a grade point average of 3.00 or better in the last 60 credits of undergraduate study.

**Foundation Courses:** All applicants must have four pre-identified courses in their background to proceed with the program core courses.

- Discrete and Logical Structures for Information Systems
- Computer Organization Course and Operating Systems
- Program Design and Data Structures
- Object Oriented Programming in Java

Applicants who do not have equivalent courses in their undergraduate course work may take the foundation courses prior to beginning graduate course work or take a test to receive a waiver. Acceptance into the program is based on overall assessment of the applicant's potential ability to complete the program of study in a satisfactory manner. Well-qualified students with minor deficiencies may be admitted to the program in provisional status with specified course work to be completed within a specified time.

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
- Self-Evaluation
- GRE scores (for applicants who have not earned at least a Bachelor's degree from a U.S. institution)
- 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.

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Visit our website for details: <http://cs.gmu.edu/prospective-students/ms-programs/ms-in-information-security-and-assurance/>  
Apply online: <http://admissions.gmu.edu/grad/applynow/>