

# Information Security

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As time goes on, more and more information is placed on the Internet at the fingertips of regular people. This information is also available to those with a malicious intent. It seems like every day (<http://www.usatoday.com/story/money/2016/02/26/cyber-hack-gained-access-more-than-700000-irs-accounts/80992822/>), a new hack (<http://timesofindia.indiatimes.com/tech/tech-news/Over-8000-website-hacking-incidents-in-Jan-Mar-2016-Government/articleshow/52110920.cms>) or a new exploit (<http://money.cnn.com/2016/05/19/technology/linkedin-hack/>) has been made available or used online, allowing for access to information (<http://www.computerweekly.com/news/450298683/LogMeIn-resets-user-passwords-after-scouring-data-dumps-from-LinkedIn-Tumblr-and-MySpace-hacks/>) that should not be. The Graduate Certificate in Information Security covers topics that help to protect this information so we can all be safer online.

Who would be suited to take this program?

This graduate certificate is best suited for students holding an undergraduate degree in computer science, information technology or those willing to take a number of ancillary courses.

What will I learn?

This certificate program covers:

- Security threats in communication systems; conventional cryptography: substitution and transposition codes; distribution of secret key over the Internet; principles of public-key cryptography; RSA and other public-key cryptographic methods; and digital signature protocol.
- Existing network security technology and the various practical techniques that have been implemented for protecting data from disclosure, for guaranteeing authenticity of messages, and for protecting systems from network attacks.
- SNMP family of standards including SNMP, SNMPv2, and RMON (Remote Monitoring), OSI systems management.
- Information protection concepts, privacy impact analysis, computer crime, legal issues, controls and auditing systems, and firewall configuration.
- Conventional Encryption and Public Key Cryptology. Security services and standards (such as Kerberos, Digital Signature Standard, Pretty Good Privacy, SNMPv2 security facility).

Why study Information Security at NJIT?

The program's narrow focus allows you to dig deep into this specific topic, and start applying your knowledge sooner. It's possible to some of the courses online, so you can more easily fit the program into your busy life. And whether you take courses online or on campus, you'll learn from NJIT's distinguished professors and instructors of the College of Computing Sciences (<http://ccs.njit.edu/>).

Prerequisites

NJIT's standard admission requirements apply to this graduate certificate, but individual courses within the program have additional prerequisites.

Note: Students lacking background relevant to NJIT's IS 513, IS 531 or IS 565 courses may need to take IS 601.

Related Degree Programs

All credits from the Information Security Graduate Certificate can be applied toward the NJIT M.S. Cyber Security and Privacy (<http://catalog.njit.edu/graduate/computing-sciences/computer-science/cyber-security-privacy-ms/>), M.S. Information Systems (<http://catalog.njit.edu/graduate/computing-sciences/information-systems/ms/>), or M.S. IT Administration and Security (<http://catalog.njit.edu/graduate/computing-sciences/information-technology/administration-security-ms/>).

Take Note

What are the Required Courses?

Code	Title	Credits
<b>Core Courses</b>		
Select four of the following:		
CS 608	Cryptography and Security	12
CS 696	Network Management and Security	
IS 681	Computer Security Auditing	
IS 687	Transaction Mining and Fraud Detection	
IT 620	Wireless Networks Security and Administration	