

# Network Security and Information Assurance

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The foundations of network security go back a long way, and involve many old-time policies and procedures since the inception of the Internet. We are entering a new age where devices never conceived before have access to the Internet, from single board computers to refrigerators to cars to thermostats. All of these devices need to be properly understood, designed, configured and maintained. The Graduate Certificate in Network Security and Information Assurance aims to help the end user and professional do that on their own but laying the foundations of how to secure these networks before they are compromised.

Who is suited for this program?

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

What will I learn?

This certificate program covers:

- An overview of computational methods used to provide secure Internet communication
- The fundamentals of current network management technology and techniques and emerging network management standards
- An overview of widely used security applications, schemes, and practices on the Internet and enterprise networks
- A working knowledge of information assurance and particular network and computer security concepts, applications, and standards
- Audit, control and security issues, requirements, and processes in organizational information systems
- Relevant issues in computer security auditing

Why study Network Security and Information Assurance 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 the program may need to take IS 601 as a prerequisite course.

Related Degree Programs

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

Take Note

Gainful Employment Disclosure

Click here (<http://www.njit.edu/graduatestudies/sites/graduatestudies/files/gainfulemployment/network-security-information-assurance-cert-gainful-employment.html>) for the Gainful Employment Disclosure for this program

What are the Required Courses?

| Code                         | Title  | Credits |
|------------------------------|--|---------|
| <b>Core Courses</b>          |  |         |
| Select two of the following  |  | 6       |
| IS 680                       | Information Systems Auditing                             |         |
| IS 681                       | Computer Security Auditing                               |         |
| IS 682                       | Forensic Auditing for Computing Security                 |         |
| IS 687                       | Transaction Mining and Fraud Detection                   |         |
| Select one of the following: |  | 3       |
| CS 652                       | Computer Networks-Architectures, Protocols and Standards |         |
| CS 656                       | Internet and Higher-Layer Protocols                      |         |

Select one of the following:

3

CS 631 Data Management System Design

IS 631 Enterprise Database Management