Computer Security and Information Assurance

Center of Academic Excellence

Since 2001, Norwich University has been designated a Center of Academic Excellence in Information Assurance Education by the National Security Agency of the United States of America. This designation is in recognition of Norwich's significant contribution in meeting the national demand for information assurance education, developing a growing number of professionals with information assurance expertise and ultimately contributing to the protection of the national information infrastructure. Norwich University has met the criteria for measuring the depth and maturity of established programs in the field of information assurance.

This degree requires a base of study in the Liberal Arts, Mathematics, the sciences, Information Systems, and Computer Programming fundamentals. It also provides flexibility for specialized study in such fields as computer forensics, information warfare, and advanced information security.

The Information Assurance program focuses on enabling our graduates to analyze requirements for and implement measures to protect information confidentiality, control, integrity, authenticity, availability and utility and to maintain their technical and managerial competence in the face of ever-changing requirements and technology. Our students will integrate knowledge from other disciplines within the school: economics, management, computer information systems and computer science, to enter into organizations with both a functional and enterprise perspective.

Graduates will be prepared to participate with computer security professionals in industry, government, military and academic environments. They will have developed a thorough commitment to a multidisciplinary perspective, fully aware at all times that technology must be integrated with human factors for success in defending information resources. They will be ready for the next phase of their continuing and perpetual education in a constantly changing field.

The academic goal for a graduate is to address the evolving nature of the social fabric of this country as it becomes more technologically driven. The program will pay special attention to individual privacy rights and how privacy rights are affected by the increasingly interconnected banks of information about individuals. As global business continues to develop, graduates will be provided with differing perspectives on information security and with a set of ethical decision-making principles for deciding how best to implement computer security in various environments.

During the spring semester of their sophomore year, CSIA majors will be required to select a concentration. CSIA majors will have the option to choose from one of three concentrations:

1. Forensics;
2. Information Warfare;
3. or Advanced Information Security.

Graduates will have entry-level ability to participate in information systems security assurance planning, procedures and practices. At a minimum, graduates will be expected to meet the standards as established by the National Security Telecommunications and Information Systems Security Committee (NSTISSC) for Information Systems Security Professionals.

B.S. in Computer Security and Information Assurance - Curriculum Map

First Year

Fall	Credits	Spring	Credits
EN 101 Composition and Literature I	3	Arts & Humanities Elective	3
IS 100 Foundations of CSIA	3	EN 102 Composition and Literature II	3
IS 130 Introduction to Computing	3	History Elective	3
MA 107 Precalculus Mathematics	4	IS 131 Computer Programming	3
		Lab Science Elective 1	4
	13		**16**

Second Year

Fall	Credits	Spring	Credits
CJ 341 Cyber Law and Cyber Crime	3	IS 240 Database Management	3
IS 228 Introduction to Data Structures	3	IS 260 Data Communications and Network	3
MA 240 Introduction to Number Theory and Cryptology	3	MA 318 Cryptology	3
MG 341 Business Law I	3	MG 346 Business Law II	3
PY 211 Introduction to Psychology	3	QM 213 Business and Economic Statistics I	3
	15		**15**

Third Year

Fall	Credits	Spring	Credits
EN 112 Public Speaking	3	EN 204 Professional and Technical Writing	3
IS 301 Software Engineering I	3	IS 302 Software Engineering II	3
IS 340 Information Systems Security Assurance I	3	IS 342 Management of Information Assurance	3
MG 309 Management of Organizations	3	MG 351 Organizational Behavior	3
Concentration Elective	3	Concentration Elective	3
	15		**15**

Fourth Year

Fall	Credits	Spring	Credits
Free Elective	3	EC 201 Principles of Economics (Macro)	3
IS 455 Comtemporary Issues in Computer Science	3	IS456	3
Lab Science Elective 2	4	Literature Elective	3
Concentration Elective	3	Concentration Elective	3
Concentration Elective	3	Concentration Elective	3
	16		**15**

Total Credits: 120

CSIA Concentrations

Forensics

CJ 442	Introduction to Computer Forensics	4
IS 311	Network Forensics	3
IS312		3
IS 411	Cyber Investigation	3
Elective		3
Elective		3
Total Credits		19

Information Warfare

IS 370	Intro to Information Warfare	3
IS 380	Offensive Information Operations	3
IS 407	Politics of Cyberspace	3
Elective		3
Elective		3

Advanced INFOSEC

CJ 442	Introduction to Computer Forensics	4
CP 431	Network Security	3
EE 325	Computer Architecture and Operating Systems	3
IS 440	Software Engineering III	3
Elective		3
Elective		3