Cyber Security

What is Cyber Security?

Cyber-security is the study of how digital computer systems can be attacked and defended. As the developed world has moved more of its economic, political and personal activity onto Internet-connected computers, there has been the inevitable increase in criminal exploitation of those same resources. A knowledge of Cyber-security has become a staple in many people’s lives. The same holds for businesses, and governments.

"Cyber threat is one of the most serious economic and national security challenges we face as a nation and America's economic prosperity in the 21st century will depend on Cyber-security. – President Obama"

What kind of jobs will the Cyber Security concentration lead to?

Potential career options for Cyber Security are:
- Information Security Analyst
- Information Technology Specialist
- Data Security Administrator
- Information Security Officer
- Computer Specialist
- Information Security Specialist
- Information Systems Security Analyst
- Computer Security Specialist
- Information Security Manager

What classes make up the Cyber Security concentration?

All students in the Cyber Security concentration MUST take the following classes:

I CSI 124X Computer Security Basics
An introduction to security in computers and networks for a general audience. The operation of computers and networks is explained to show how they are the basis for attacks. The course will confer a basic but comprehensive understanding of how computer and network attacks (e.g. viruses, worms, denial of service) work. Also, how a general user of computers can defend her or himself from current and future attacks.

I INF 306 Information Security & Assurance
Technical aspects of Cyber-security in computer and network systems. The nature of attacks and defense in digital systems; models of vulnerabilities, threats and security; cryptography; forensics; security policies and procedures; software and network security. Prerequisite(s): I INF 202.

Then you will pick 2 classes from this list:

I INF 401 Case Studies in Digital Citizenship
I INF 452 Computer and Network Security
I INF 453 Information Security and Privacy
I INF 454 Human Aspects of Cyber-security
I INF 455 Prevention and Protection Strategies in Cyber-security
I INF 496 Special Topics
I CSI 300Z Social, Security and Privacy Implications of Computing
I CSI 424 Information Security
I CSI 426 Cryptography

http://www.whitehouse.gov/administration/eop/nsc/cybersecurity