

MSI 604 - IT Solutions to Business Problems
University at Albany, SUNY
Spring 2002

Instructor Information

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 Office Hours: W 1:00-2:30 or by appointment
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Class Information

Time: W 9:00 - 12:00
 Room: BA 233
 Dates: January 23 - February 20
 Available Labs: MIS Lab, HRIS Lab

Course Overview

This course is a three module course. In the first module concepts of computer security will be introduced. It will also cover hands on experience in implementing security systems using the Java language. The course will discuss the vulnerabilities of the network and techniques for camouflaging data like cryptography and Steganography. The students will work on assignments using the Java Cryptography Architecture and Java Cryptography Extension APIs. Public Key Infrastructure which is currently used for secure data transmission over the web will also be discussed. Some other topics like privacy and payment systems will also be covered. By the end of the class the students should expect to have a basic understanding of different aspects of computer security.

Books & Software

Text: Professional Java Security by Jess Garms and Daniel Somerfield
 Reference: Business Data Communications and Networking by Raymond R. Panko
 Reference: Hackers Beware by Eric Cole
 Reference: [Computer Networking, A top down approach featuring the Internet](#) by James W. Kurose and Keith Ross.

Grading

Homework: 35%
 Paper: 25%
 Final Exam: 40%

Course Schedule

Lec. #	Date	Topics	Readings
1	01/23	Introduction	Chapter 1 (PJS)
		Cryptography	Chapter 3 (PJS)
2	01/30	Symmetric Encryption (Java)	Chapter 4 (PJS)
		Watermarking and Steganography	
3	02/06	Asymmetric Encryption (Java)	Chapter 5 (PJS)
		Payment Systems	
4	02/13	Message Digests, Signatures, Certificates (Java)	Chapter 6 (PJS)
		Privacy and Security	
5	02/20	Exam	
		Student Presentations	