

CS 3433 - Computer and Information Security

Instructor:

Hugh B. Maynard

4.01.28 SB

458-5542

Office Hours: 9:00 - 10:00 MWF

Additional Useful Texts: **The Tao of Network Security Monitoring**

by Richard Bejtlich

Prerequisites: CS 3423 (Systems Programming)

Topics:

- Computer Security and Ethics
- Minimal Linux System Administration
- Classical Cryptography
 - ROT-13
 - DES
 - RSA
 - MD4/5
 - XOR
 - Digital Signatures
 - PGP
- Authentication
- Authentication Based Attacks
- Security Issues in Programming and Vulnerability Examples
 - Stack Buffer Overflows
 - Heap Buffer Overflows
 - Format String Vulnerabilities
- Intrusion Detection
- Root Kits
- Scan Detection

- Tripwire and other UNIX-oriented integrity/security tools
- Packet Analysis
- Scanning Tools
- Wireless Exploit Analysis

Grading:

Projects: 100 points

Tests if necessary (meaning do the projects carefully)

Total: 100 points

Grading Scale:

A: 90 to 100

B: 80 to 89

C: 60 to 79

D: 50 to 59

F: 0 to 59

Note: I reserve the right to lower the grading scale if necessary so that I can increase the difficulty of the projects.

Drop dates: The deadline for dropping without a grade assigned is September 12. The deadline for dropping an individual course is October 30.

Final Examination: 10:30 am - 1:00 pm Wednesday, December 10.