ESE 360 Network Security Engineering
Spring 2019

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Office Hours: Tuesdays 5:00 PM to 5:45 PM or by appointment.
Office Location: Room 258a, Light Engineering building

Text:

Cryptography Engineering: Design Principles and Practical Applications. N. Ferguson, B. Schneier, T. Kohno. Wiley; 1 edition (March 15, 2010)

Grading:
- Test 1 30%
- Test 2 30%
- Project 40%

Week 1:
Introduction to network topology
Review computer network technologies
Review OSI layered protocol

Week 2:
Introduction to Cryptography
Block Cipher and Modes

Week 3:
Hash Functions and Message Authentication Codes

Week 4:
The Secure Channel

Week 5:
Implementing cryptographic systems (issues)

Week 6:
The prime numbers in the cryptography context

Week 7:
Public-key cryptography

Week 8:
Introduction to cryptographic protocols

Week 9:
Implementing cryptographic systems (issues), continuation.
Week 10:
Centralized key servers.
Introduction of a Public-Key Infrastructure.

Week 11:
Implementation of the Public-Key Infrastructure.

Week 12:
Implementation issues of the Public-Key Infrastructure.

Week 13:
Storing secret information.
Society and networks security

Week 14:
Final

Note: If you have a physical, psychological, medical or learning disability that may impact on your ability to carry out assigned course work, I would urge you to contact the staff in the Disabled Student Services office (DSS) 631-632-6748. DSS will review your concerns and determine with you what accommodations are necessary and appropriate. All information and documentation of disability are confidential.