

CNT5410

Fall, 2011

Syllabus (tentative)

Course Title: Computer & Network Security
Credits: 3
Instructor: Dr. Randy Chow
Office: CSE E348
Tel: (352) 505-1582
Office Hours: 1:00pm – 3:00pm, Tuesday and Thursday
Email: chow@cise.ufl.edu
Course URL: Sakai <https://lss.at.ufl.edu/>

Class Room: CSE E118
Class Hours: Tuesday 8 - 9 Periods 3:00pm – 3:50pm and 4:05pm – 4:55pm,
Thursday 9 Period 4:05pm – 4:55pm

TA: TBA
TA Office: CSE 309
Office Hours: TBA
Email: cnt5410@gmail.com

Textbooks:

- Network Security: Private Communication in a Public World, Second Edition, by Charlie Kaufman, Radia Perlman, and Mike Speciner, Prentice-Hall, ISBN 0-13-046019-2

Objectives:

This course studies the fundamental concepts and protocols for computer and network security. We will address (1) the basics of cryptography, including secret key cryptography, hashes and message digests, and public key algorithms; (2) the security protocols, including Kerberos, PKI, IPSec, and SSL/TLS; (3) network intrusion detection with selected topics on attacks and defense techniques; (4) formal foundation and recent advances in network security.

Course Outline Topics:

Introduction to Network Security
Cryptography
 Secret Key Cryptography
 Hashes and Message Digests
 Public Key Algorithms
Authentication Systems
Standards
 Kerberos
 Public Key Infrastructure
 IPSec

SSL/TSL
Network Intrusion and Defense
Network-based Attacks
Traffic Analysis
Formal Foundation and Recent Advances in Network Security

Grading:

Project 30%
First Mid Term Exam..... 20%
Second Mid Term Exam...20%
Final Exam ... 30%

Academic Honesty Policy:

All students admitted to the University of Florida have signed a statement of academic honesty committing themselves to be honest in all academic work and understanding that failure to comply with this commitment will result in disciplinary action. This statement is a reminder to uphold your obligation as a UF student and to be honest in all work submitted and exams taken in this course and all others.

Exam Policy:

Mid Term and Final exams will be close-book. No make-up exams will be allowed unless a student's absence is approved before the exam. The exams account for a total of 70% of the final grade.

Project Policy:

There will be three programming projects over the semester. The first two will be individual projects on cryptography and mutual authentication, respectively. The third will be a team (of two students) project of your own choosing. We will provide you some sample ideas for the last project.

Re-grading Policy:

Re-grading requests for projects, and exams will be considered only within a two-week period after the grading has been returned to the class.

EDGE students:

EDGE students can access class materials and turn in the projects from/to the class Sakai web site. Exams should be proctored and taken within three days after receiving the faxed exams. Solutions to the exams should be e-mailed or faxed by the proctor to the instructor the day that the exam is taken.