

# CIS 4350: Wireless Networks and Security

Spring 2010

Instructor: Dr. James Du

Email: [dux@temple.edu](mailto:dux@temple.edu) Phone: 1-8888 Office: Wachman 1037

Lectures: 11:00-12:20, Tuesday and Thursday

Location: Tuttleman 403B

Laboratory: 8:00-9:50, Wednesday, in CC 209.

Credits: 4

Prerequisite: CIS 3207 (OS) and CIS 3223 (Algorithm)

Educational Objectives: This course introduces essential wireless networks and security issues.

Textbook: Wireless Communications and Networks, Second Edition, William Stallings, ISBN-10: 0131918354, ISBN-13: 9780131918351, Prentice Hall.

Reference: William Stallings, Network Security Essentials: Applications and Standards, 3/E, 2007, Prentice-Hall. ISBN-10: 0132380331; ISBN-13: 9780132380331

## Topics:

1. Introduction
2. Symmetric Encryption and Message Confidentiality
3. Public Key Cryptography
4. Wireless Local Area Networks
5. Wireless Cellular Networks
6. Mobile Ad hoc Networks
7. Wireless Sensor Networks
8. WiMAX Networks

## Grading

Item	Weight
Homework	5 %
In-Class Exercises	15 %
Technical Paper Reading & Presentation	20 %
Midterm Exam	30 %
Final Exam	30 %

## **Technical Paper Reading & Presentation**

You are required to read a recent research paper in the areas of computer networks, or wireless networks. The papers are from top networking conferences (like IEEE Infocom, IEEE Globecom, ACM MobiCom, ACM MobiHoc, etc) and journals. The paper list will be given later. The purpose of the Technical Paper Reading is to let students know the up-to-date research frontier in networking area. You need to prepare a presentation and talk about the main content of the technical paper.

## **Course Policy**

- Students are expected to attend all classes. If a class is missed for any reason, the student is responsible for finding out the material covered, any assignment and handouts given, and any other announcements made in the class (e.g., exam date).
- Homework and other assignments should be submitted at the beginning of the class on the corresponding due date. Late work will be penalized at 5% of its full credit per day. You may discuss homework assignments with classmates but all solutions must be original and individually prepared.
- No make-up exam will be allowed except in cases of emergencies for which prior permission of the instructor must be taken.
- Cheating in an exam or an assignment (project, homework) can result in a grade of F in the course.