EEC173B/ECS152C
Wireless Networking/Mobile Computing
Winter 2006

Instructor: Chen-Nee Chuah
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Lecture time: Tue/Thu 3-4:30 pm

Lab: Fri 11am-noon

Office Hours: Tue 4:30-5:30, Fri 10-11am

What's the course about?

- Understand the design challenges of wireless networking/mobile computing, with emphasis on "data" communication
- Learn the fundamental principles in addressing these challenges
  - NOT about memorizing protocol standards and specifications
  - Appreciate creative technical solutions and learn to apply them to analogous problems
  - Learn the design methodology/approach and apply them to new problems
- Focus on architecture, protocol, and algorithm design
  - Only discuss some relevant network hardware
- Learn the techniques to model and analyze the various components
  - Gain insight on how to optimize performance and design a better system
- Hands-on design projects

Course Info

- Course Web page:
  - http://www.ece.ucdavis.edu/~chuah/classes/EEC173B
- Prerequisites
  - EEC173A/ECS152A, or EEC189Q (F03, F04)
  - Basic probability and programming skills
- Need computer account in 2112 Kemper Hall
- Class mailing list: wireless-w06@ucdavis.edu
  - NO SPAM please!

Course Materials

- Lecture slides, handouts in class or in the lab
- Textbook
- Related software documentation online
- Additional references on class website (in case you are interested):
  - http://www.ece.ucdavis.edu/~chuah/classes/EEC173B/refs.html

Grading

- Homework assignments
- Midterm: Open book
- Design projects – 3 or 4 students per group
  - Some initial lab assignments to help you make progress

Homework	20%
Midterm	25%
Labs & Design Project *Lab assignments- 20%* *Proposal – 5%* *Presentation – 10%* *Report – 20%*	55%

Policies and Guidelines

- **No late homework or project write-ups**
  - Unless otherwise specified, assignments are due in class before lecture or email by the due date/time
  - Late homework will not be graded unless a special permission is granted in advance
- Make-up midterm will be oral
  - Only for those who have legitimate reasons
- Incomplete
  - Not granted unless proof of emergency
  - Need to fill "Agreement for Incomplete" form

How to do well in this class?

- Attend lectures!
  - Lectures cover the fundamentals and may include material not found in the text book!
- Reading outside lecture
  - Handouts, reference books complements the lecture with detailed information on selected topics
- Understand, not memorize!
  - Not all of the details are important. Pick and choose wisely
- Do your homework
  - Key to understanding
  - Best way to prepare for exams
- Participate in the discussions

Design Projects

- Goal: Provide students with experience in cutting-edge wireless technology research
- Theme of design projects: *Opportunistic Networking*
  - Explore basic principles such as leveraging heterogeneous wireless connectivity, accessibility, location-awareness, mobility, and security
- Details will be discussed in our first lab session
  - http://www.ece.ucdavis.edu/~chuah/classes/EEC173B/project.html
  - http://www.ece.ucdavis.edu/~chuah/classes/EEC173B/topics.html

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  - HP IPAQs
  - GPS receivers