

ECE/CS 439 : Wireless Networks : Spring 2009

Prerequisite: ECE/CS 438 Communication Networks or equivalent

Graduate students may register for 3 or 4 hours. Undergraduate students may only register for 3 hours.

Instructor: Nitin H. Vaidya, Phone: 265-5414 E-mail: nhv@uiuc.edu
Office Hours: Wednesday 2:00 - 3:30 or by appointment, room 458 Coordinated Science Lab.
Class: Tuesday and Thursday, 9:30-10:50 p.m.

Course web page: <http://users.crhc.uiuc.edu/nhv/09spring.439/>

Please visit the course web page regularly to see course-related announcements, as well as assignments, project description, and other relevant information.

Course material: There is no required textbook for this course. The instructor will make course notes on selected topics available. The course notes will be supplemented by papers from conferences and journals. Some of the course material (e.g., selected notes) may be made available for purchasing in Everitt Lab.

Some relevant texts:

- Mobile Communications, Jochen Schiller, Addison-Wesley.
- Wireless Communications, Theodore Rappaport, Prentice Hall.
- Fundamentals of Wireless Communication, Tse and Viswanth, Cambridge University Press.

Course Content: Several topics related to wireless networking will be covered, including a brief overview of physical layer issues, topics in cellular systems, medium access control, wireless capacity, mobile IP, routing protocols for wireless multi-hop networks, sensor networks, TCP over wireless networks, and wireless security.

Grading policy

- **For students registered for 3 hours:**
Two mid-term tests : 40% (total for the two tests)
Final examination: 35%
Assignments: 25%
- **For students registered for 4 hours:**
Two mid-term tests : 30 % (total for the two tests)
Final examination: 30 %
Assignments: 15%
Project: 25 %

The assignments will include homework problems, simulation exercises, and some hands-on experiments using wireless equipment.