Course Overview: This course is a special topic course and is for graduate students or seniors with instructor's consent. We will study in this course the brave new Wireless World including Internetworking (TCP/IP), Cellular Networks, WiFi (802.11) and Sensor Networks. We will assign a project on RFID (Radio Frequency Identification) systems for asset management in a supply chain environment, if time allows. The students will study research papers on RFID, present the papers, and come up with their design idea. The students will experiment with wireless sensor networks with Motes (MIB510CA: Programming board, MPR410CB: Radio board 433Mhz, MTS300CA: Sensor board and TinyOS) on your favorite topics.

Textbook: "Wireless Communications and Networks", by William Stallings, Prentice-Hall

Chapters 1-3, 6, 8 (except section 8.3) are covered in EE129. We will either skip them or briefly mention them.

Prerequisites: EE 129 (Computer Communication Networks) or Consent of the instructor

Instructor: Professor Hwa Chang
Office: Room 131, Halligan Hall; e-mail: hchang@eecs.tufts.edu; Telephone: 627-5178
Office hours:
• Tuesdays: 12:00-1:30pm
• Wednesday: 1:30-2:50 pm

Teaching Assistant: Bor-rong Chen
Office: 229A, Halligan Hall; e-mail: brchen@eecs.tufts.edu
Office hours: • Tuesdays 2:50-3:50pm • Wednesday: 11:00-12:00 pm • Thursdays: 11:00-12:00 pm

E-mail List: We will have a class mailing list which will be frequently used to make announcements. Make sure you get on the mailing list.

Course web page: All assignments, hints, handouts, and announcements will eventually be posted on the class' web page: http://www.eecs.tufts.edu/~hchang/ee194win-f03 (tentatively).
Homework:

- Weekly or biweekly assignments depending on the scope of the problems to be completed by each student individually are due Monday at the beginning of class.

- Late homework will be penalized at 20% per day, and they will not be accepted after 5pm on Fridays except some special situations. In case of illness or business travel, late homework will not be penalized, but they will not be accepted later than the following Monday. Make sure the homework is stamped at the EECS main office, and placed in the TA's mailbox. For fully-credited late homework, you must have the instructor's PRIOR permission.

- You are encouraged to work on the homework with your classmates. However, avoid the suspicion of cheating and all homework has to be written up individually.

Quizzes: There will be a quiz every Wednesday, if time allowed. The highest 6 grades will be used toward your final grade. Missed quizzes will not be re-taken. Quizzes will be given within the last 15 minutes of class covering previous material excluding the current lecture. Please plan on asking all questions ahead of time!!!

Projects: There will be three projects. All of them are demanding. Please plan your time accordingly. More details are coming.

Exams: There will be one two-hour final exam scheduled by the registrar on **Wednesday, May 12 at 12:00 noon**. The exam times are fixed. Please plan accordingly. If for a good reason, you have to miss the exam, please give Professor Chang one week advance notice. If you miss the exam for an unexpected situation, e.g. sickness, accident, etc., you have to contact Professor Chang within 24 hours of the scheduled time.

Attendance: Although classroom attendance is not mandatory, it is highly recommended. Please note that you are responsible for all material covered in class, including changes in assignment due dates or exam schedules. Sometimes, some information is mentioned over email, but not in class or vice versa. Make sure you attend and keep track of your email!

Course Grading:

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**Reading Assignment:** Read Chapters 1, 2, 3 and 4.