

ICOM 6505 (Secc. 100) - Wireless Networks

Time: Monday & Wednesday (LW) 5:55 – 7:10 p.m. Spring 2007
Room: S-203
Office Hours: Monday (L) 1:00 – 4:00 p.m. or by appointment.

Instructor: Dr. Yi Qian
Office: T-213
Phone: 787-832-4040 x2191, e-mail: yqian@ece.uprm.edu
Instructor's Web: <http://www.ece.uprm.edu/~yqian/>
Course Website: [http://www.ece.uprm.edu/~yqian/... ...](http://www.ece.uprm.edu/~yqian/...)

Textbook: There's no required textbook. I will list several reference books in the following.
I will put all the Lecture Notes and the announcements on the course web site.

Course Objectives:

To understand the current research and industry trend on wireless networking concepts, principles, protocols, and design issues

Course Outline: (Subject to Changes)

Introduction and Overview
Characteristics of the Wireless Medium
Medium Access Control for Wireless Links
Mobility Support in Internet and Mobile IP
Route Optimization in Mobile IP
Wireless TCP
Cellular Networks
Wireless Local Area Networks
Mobile Ad Hoc Networks
Wireless Sensor Networks
Wireless Networking Security Issues
Project Progress Presentations
Final Project Presentations

Grading: Homework 15%
Projects 50%
Midterm Exam: 15%
Final Exam: 15%
Class Participation 5%

Project Description:

Project topics will be provided at the 5th week of the semester. You need to choose a project topic, and get the approval from the instructor before the end of the 7th week. At the 11th week this semester, there will be project progress presentations. The final project presentations will be the 15th & 16th week.

References: Books: K. Pahlavan and P. Krishnamurthy, *Principles of Wireless Networks A Unified Approach*, Prentice Hall, 2002.
A. Jamalipour, *The Wireless Mobile Internet Architectures, Protocols and Services*, John Wiley & Sons Ltd., 2003
T. Rappaport, *Wireless Communications: Principles and Practice*, 2nd Edition Prentice Hall, 2002.
Research Papers: To be provided during the semester.