ECE 571 – Wireless and Personal Communication Systems
Fall 2014

Instructor: Xiangwei Zhou
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Office Hours: WF, 2:00 – 5:00 pm or by appointment
Lecture: TR, 3:35 – 4:50 pm, ENGR A-220
Lab: N/A

Prerequisites: ECE 315 and ECE 355 or consent of instructor.

Course Objectives: To understand the principles of wireless and personal communication systems.


Topics: Introduction to cellular systems (3 hrs)
Multipath-fading channel modeling (9 hrs)
Shadowing and path loss (6 hrs)
Co-channel interference (3 hrs)
Single- and multi-carrier modulation techniques (6 hrs)
Digital signaling on flat fading channels (3 hrs)
Multi-antenna techniques (3 hrs)
Spread spectrum techniques (6 hrs)
OFDM and CDMA (3 hrs)
Radio resource management (2 hrs)

Grading/Evaluation: Grades will be computed from the following:
Homework 15%
Project 25%
Midterm 30%, Tuesday Oct. 21, 3:35 – 4:50 pm
Final 30%, Thursday Dec. 11, 2:00 – 3:45 pm

Grades: A: [90 – 100]
B: [80 – 89]
C: [70 – 79]
D: [60 – 79]
F: [<60]

Classroom Policies
A. Attendance Policy: Students are expected to attend classes regularly. Students are responsible for all announcements made in class and/or posted to D2L.

B. Late Homework/Missed Exams: Late homework/reports are not accepted. If an exam is missed for a legitimate reason, a grade will be assigned based on the remaining homework/exams.