ECE 471 Syllabus  
Fall 2014

Instructor: Dr. Xiangwei Zhou  
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Office: ENGR E-216  
Office Phone: 453-7064

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:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework</td>
<td>15%</td>
</tr>
<tr>
<td>Project</td>
<td>25%</td>
</tr>
<tr>
<td>Midterm</td>
<td>30%, Tuesday Oct. 21, 3:35 – 4:50 pm</td>
</tr>
<tr>
<td>Final</td>
<td>30%, Thursday Dec. 11, 2:00 – 3:45 pm</td>
</tr>
</tbody>
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A: 90-100; B: 80-89; C: 70-79; D: 60-69; 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 is not accepted. If an exam is missed for a legitimate reason, a grade will be assigned based on the remaining homework/exams.