

**FALL 2009 : ELEC 5100: WIRELESS COMMUNICATION SYSTEMS**  
T Th 9:30–10:45 AM Broun 306

**Instructor:** Prof. J.K. Tugnait 313 Broun, 4-1846, tugnajk@eng.auburn.edu  
Office Hours: MWF 10:30 – 11:50 AM; 2:00 – 3:00 PM;  
e-mail for appointment at other times.

**Prerequisite:** ELEC 3400

**Textbook:** V.K. Garg, *Wireless Communications and Networking*. Elsevier, 2007.

**Refs.:** T.S. Rappaport, *Wireless Communications: Principles and Practice*, 2nd Ed.,  
Prentice Hall, 2002.  
J.W. Mark and W. Zhuang, *Wireless Communications and Networking*.  
Prentice Hall, 2003.

**Web Site:** <http://www.eng.auburn.edu/users/tugnajk/>  
All posted notes are in “microsoft windows journal file” format.

**Grading Basis:**

Quizzes :	25 %	
Test I :	35 %	( Oct. 1, 2009, Thursday)
Final :	40 %	( Dec. 15, 2009, Tuesday, 8:00 AM)

**Attendance Policy:** *Class attendance and participation is required. Unexcused absences from more than 3 class sessions will receive an F in the course.* For an absence to be excused, the student must present an official excuse obtained from the Engineering Student Services Office in 104 Ramsay no later than 1 week after the absence. For more information, see the Academic regulations in the Tiger Cub.

**Homework:** will be assigned periodically, but will not be collected. Solutions to the homework problems will be discussed in class.

**Quiz Policy:** Typically a quiz will be on material covered in the most recent homework assignment. There may be unannounced (pop) quizzes. The lowest quiz grade will be dropped from your average. **No “make-up” quizzes will be given for any absences.**

**TEXT COVERAGE**

- Chapter 5 (Cellular concept)
- Chapter 2 (Teletraffic eng.)
- Chapter 3 (Mobile radio propagation)
- Chapters 4 & 9 (Modulation/demodulation techniques)
- Chapter 6 (Multiple access techniques)
- Parts of Chapters 10 & 11 (time permitting)

**ELEC 5100/6100. WIRELESS COMMUNICATION SYSTEMS (3).** Pr., ELEC 3400, ELEC 3320. Introduction to mobile cellular radio and wireless personal communications, cellular concept, mobile radio propagation, modulation techniques, multiple access techniques, wireless systems and standards.