

EECS 622 – Microwave and Radio Transmission Systems (Fall '08)

MWF 11:00 - 11:50

Spahr Engineering Classroom - Eaton Hall

Instructor: Prof. Jim Stiles**Website:** www.ittc.ku.edu/~jstiles/622/eeecs622.html**Offices:** 3030 Eaton Hall 864-8803
117 Nichols Hall 864-7744**E-mail:** jstiles@eeecs.ku.edu**Office Hours:** 9:00 to 10:50 MWF, or by appointment.**Catalog Listing:** EECS 622 (3) Introduction to radio transmission systems. Topics include radio transmitter and receiver design, radiowave propagation phenomenology, antenna performance and basic design, and signal detection in the presence of noise. Students will design radio systems to meet specified performance measure.**Prerequisite:** EECS 420**Course Objective:** To introduce the fundamentals of radio transmission systems, including wireless communication devices and radar. Topics include transmitter and receiver system analysis and design, antenna performance and specification, fundamentals of propagation and scattering, and detection in the presence of noise. Upon completion of this course, students should be capable of designing, at a systems level, a radio transmission system that will meet a given detection specification.**Suggested Text:** *Microwave and RF Design of Wireless Systems*, by David Pozar, J. Wiley, 2001.
RF and Microwave Wireless Systems, by Kai Chang, J. Wiley, 2000.

Radio Frequency Principles and Applications, by Albert Smith Jr., IEEE Press, 1998.

Grading: The following factors will be used to arrive at the final course grade.

Homework	10 %
Projects	20 %
Exam I	20 %
Exam II	20 %
Attendance	5 %
Final Exam	25 %

Grading Scale: Grades will be assigned to the following scale:

A	90 - 100 %
B	80 - 89 %
C	70 - 79 %
D	60 - 69 %
F	< 60 %

These are guaranteed **maximum** scales and may be revised **downward** at the instructor's discretion.

Homework: Homework will be collected at the **beginning** of class on a roughly weekly basis. Collaboration with classmates is permitted. **Copying is not permitted.**

Exams: **No make-ups** for missed exams will be given. **If** you have attended 75% of the lectures **and** have 75% on the homework, **and** you have a legitimate excuse for missing an exam (e.g., significant illness family emergency), the first missed exam will be scored by taking 90% of the average of the other exams. Subsequent missed exams will be scored as zero. Note this policy does **not** mean that you can "drop" one exam!

Ethics Policy: Academic misconduct will **not** be tolerated. It will result in a **failing grade** and may result in further disciplinary action by the University. For details see the Academic Misconduct section of the Timetable.