EENG 3810 Communication Systems
Fall 2013
Mon. & Wed., 12:30 – 1:50 PM
Classroom: DP B227

Instructor: Dr. Kamesh Namuduri
Office: DP B234
Phone: 940-369-8960
Email: kamesh.namuduri@unt.edu
Office Hours: Tuesday/Thursday, from 2:30 to 3:30 pm or by appointment

Course Description

This course introduces the concepts of transmission of information via communication channels. Topics include signal and systems (Fourier analysis), amplitude and angle modulation for the transmission of continuous-time signals, analog-to-digital conversion and pulse code modulation, and the basic principles for the analysis and design of digital communication systems.

Textbooks

- Required: B.P. Lathi and Z. Ding, *Modern Digital and Analog Communication Systems*, Fourth Edition, ISBN-10: 0195331451, Oxford University Press, 2009.

- Reference: S. Haykin and M. Moher, *Communication Systems*, Fifth edition, ISBN-10: 0471697907, Wiley, 2009.

Prerequisites

EENG 2620 Signals and Systems; EENG 3510 Electronics I; and MATH 1780 Probability Models or MATH 3680 Applied Statistics.

Basic MATLAB skills (recommended)

Grading Policies

Homework and MATLAB Assignments: 25% (**Penalty** if late)
Mid-term Exam: 25%
Final Exam: 35%
Project: 15%

General Comments

- Students are encouraged to discuss class material and homework in order to better understand concepts. However, all the homework you submit must be of your own. Direct copying of a solution (from a friend or a book) will be considered as plagiarism and a violation of the University Honor Code.
- Homework assignments are to be turned in at the beginning of the class on the due date. Late submission (Homework and Project) will not be accepted.

- The exams (midterm and final) are closed book with one page (8 ½ x 11) of notes allowed. Make up exams may be given only under exceptional circumstances and with prior approval of the instructor.
- All students are responsible for announcements made in lecture, on the student access website, or via the class email list.
- It is the responsibility of students with certified disabilities to provide the instructor with appropriate documentation from the Dean of Students Office (see http://www.unt.edu/oda).

Class Schedule (tentative)

Week	Topics	Reading
1	Introduction, Signals, and Signal Space	Ch. 1, Ch. 2
2	Signal Space	Ch. 2 and 3
3	Fourier analysis	Ch. 2 and 3
4	Fourier analysis	Ch. 3
5	Amplitude modulation	Ch. 4
6	Amplitude modulation	Ch. 4
7	Amplitude modulation	Ch. 4
8	*Midterm*	
9	*Spring Break*	
10	FM and PM	Ch. 5
11	FM and PM	Ch. 5
12	FM and PM	Ch. 5
13	Sampling, PCM, Digital Communications	Ch. 6
14	Sampling, PCM, Digital Communications	Ch. 6
15	*Project Presentation*	
16		
17	*Final Exam (Comprehensive): 1:30PM-3:30PM*	