

Ohio State University Department of Electrical and Computer Engineering
ECE508 - Communication Lab, Autumn 2006

Instructor :

Name: Lifeng Lai
e-mail: lail@ece.osu.edu
Office: DL505

Lecture Time :

Thursday 1:30 PM - 5:18 PM

Office Hours :

By appointment

Prerequisites :

ECE501 (prerequisite or concur)

Objective :

To develop the understanding of fundamental communication theory by computer simulation and understand the way how the theory works practically using LabView software.

Reference :

Lab Packet (recommended to buy from CopEz)
Lathi, B.P. Modern Analog and Digital Communication Systems, 2nd Ed.
Stremler, F.G. Introduction to Communication Systems, 2nd Ed.

Class Schedule :

week	topic
1	lab 0 : Introduction to LabView
2	lab 1 : Spectral Representation of Signal
3	lab 2 : Spectra of Linear Systems
4	lab 3 : Amplitude Modulation
5	lab 4 : Noise in AM (midterm project)
6	lab 5 : Pulse Modulation, Sampling, and Quantization
7	lab 6 : Detection Error Probability of Digital Communication Systems
8	lab 7 : Phase-Locked Loops
9	lab 8 : Frequency Modulation
10	Final Exam

Attendance is required for each lab. No make up lab will be given without advanced agreement.

Grading : Lab reports and class attendences 50%, midterm project 20%, Final exam 30 %. Lab reports must be submitted at the beginning of the following lab, no late report will be accepted.