



EE 322: Linear System II

SYLLABUS - Fall 2006

Instructor: Dr. Zhiqiang Wu

Office: 421 Russ Engineering Center

Email: Zhiqiang.Wu@wright.edu

Office Hours: MW 11:00-12:00am, 4:00-5:00pm

Class Time and Place: Monday & Wednesday, 9:45 am - 10:55 am, 150 Russ Center

Credits: 4.00

Prerequisites:

- EE321

Course Description: The goal of this course is to provide students with a introduction to fundamental analysis and design methods for discrete-time signals and systems. Major topics include: sampling and representation of discrete-time signals, discrete-time system input-output relationships, frequency response, sampling theory, Z-transform, discrete and fast Fourier transforms, FIR filter design.

Textbook: J. H. McClellan, R. W. Schafer and M. A. Yoder, *DSP First: A Multimedia Approach*, Prentice Hall, 1998

Reference Books:

- Joyce Van de Vegte, *Fundamentals of Digital Signal Processing*, Prentice Hall, 2001

Grading:

Homework:	30%
Midterm Exam:	30%
Final Exam:	40%

Course Outline:

- sampling theory

- linear time-invariant discrete system
- using Z-transform to solve discrete-time signal and system problems
- Discrete Time Fourier Transform (DTFT) and Discrete Fourier Transform (DFT)
- design FIR filters

Computer Usage:

Each student is expected to master Matlab for computer experiments.

Class attendance:

Attending and actively participating in lecture is a requirement of this course. If you cannot attend a lecture, please make sure that you can obtain a set of lecture notes from a classmate. You are responsible for all information given in class verbally or in writing.

Academic Honesty:

Academic honesty is fundamental to the activities and principles of a university. All members of the academic community must be confident that each person's work has been responsibly and honorably acquired, developed, and presented. Any effort to gain an advantage not given to all students is dishonest whether or not the effort is successful. The academic community regards academic dishonesty as an extremely serious matter, with serious consequences that range from probation to expulsion. When in doubt about plagiarism, paraphrasing, quoting, or collaboration, consult the course instructor. Academic honesty is each student's responsibility. You are responsible for not cheating and not allowing anyone to cheat from you. If there is evidence of cheating on examinations, the minimum penalty will be a zero for all parties involved. Evidence of cheating also will be reported to Electrical Engineering chairman in accordance with University guidelines for dealing with academic dishonesty.