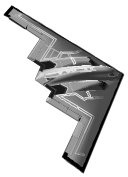

ECEN 3723 Systems I
Spring 1999

Syllabus

Time: Tuesday/Thursday 2:00-3:15 PM

Place: Engineering South 302

Prerequisite: ENGSC 2613- Introduction to Electrical Science
MATH 2613- Differential Equations

Text: *System Dynamics*
Katsuhiko Ogata, Prentice-Hall, 1998

References: *Discrete-time and Continuous-time Linear Systems*
Robert J. Mayhan, Addison-Wesley, 1984
Signals and Systems- an Introduction
Leslie Balmer, Prentice-Hall, 1991
Signals, Systems and Transforms
Charles L. Phillips and John M. Parr, Prentice-Hall, 1995

Instructor: Professor Gary G. Yen, Engineering South 202D
http://www.okstate.edu/elec-engr/faculty/yen
405-744-7743, gyen@master.ceat.okstate.edu
Office Hours: Tuesday/Thursday 10:30 AM-5:00 PM
or by appointment only

Objectives: To introduce some basic tools needed for signal and system analysis and design applicable to dynamic controls through mathematical derivations and computer simulations.
The topics include

- signals and systems representation
- *Laplace* transform
- solving differential equations
- *z* transform
- solving difference equations
- modeling of electrical systems
- modeling of mechanical systems
- time-domain analysis
- frequency-domain analysis
- state space model and its solution

Grading:

10 Weekly Homework Assignments	**20%**
1/21, 1/28, 2/4, 2/11, 2/18, 3/11, 3/25, 4/13, 4/20, 4/27	
Computer Simulation Project	**10%**
Midterm Exam 1 (March 4)	**20%**
Midterm Exam 2 (April 6)	**20%**
Final Exam (May 7, 1:00-2:50 PM)	**30%**

A-85% above; **B**-76%-85%; **C**-66%-75%; **D**-56%-65%; **F**-55% below

Note: All exams are open books and class notes.