ECEN 3723 Systems I
Fall 2000
Syllabus

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

Place: Cordell 128

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@ceat.okstate.edu
                            Office Hours: Tuesday/Thursday 3:15-5:00 PM

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: 10/11 Weekly Homework Assignments   **20%**
                            8/31, 9/7, 9/14, 9/21, 10/10, 10/17,
                            10/24, 11/9, 11/16, 11/23, 11/30
                            Computer Simulation Project   **10%**
                            Midterm Exam 1 (September 28)   **20%**
                            Midterm Exam 2 (October 31)   **20%**
                            Final Exam (December 11, 10:30 AM-12:20 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.