



ECEN 5713 Linear Systems Fall 2000



- Time:** Monday/Wednesday 1:30-2:45 PM
- Place:** Telecommunication Center (TELC) Studio C
- Text:** *Modern Control Theory*, 3rd edition, William L. Brogan
Prentice-Hall, 1991 (eewlb@ee.unlv.edu)
- References:** *Linear Systems*, Panos Antsaklis and Anthony Michel
McGraw-Hill, 1997 (antsaklis.1@nd.edu)
Linear System Theory and Design, Chi-Tsong Chen
Oxford, 1984 (ctchen@sbee.sunysb.edu)
Linear Systems, Thomas Kailath
Prentice-Hall, 1980
Linear Systems, Ray DeCarlo
Prentice-Hall, 1989
- Instructor:** Professor Gary G. Yen,
<http://www.okstate.edu/elec-engr/faculty/yen>
405-744-7743, gyen@ceat.okstate.edu
Engineering South 202D
Office Hours: Monday/Wednesday 3:00-5:00 PM
- Objectives:** To study the fundamental theory of finite-dimensional linear system with emphasis on the state-space representation and its solution. The topics include
- mathematical basis-
matrix theory, linear algebra, vector space
 - system representation-
input-out operator, geometric approach,
state space representation, transfer function algorithm
 - conversion of alternative representations
 - linear dynamical solution
 - controllability, observability, stability and control
 - linearization and minimal realization
 - state feedback and state estimation
- Grading:**
- | | |
|--|------------|
| 10/11 Weekly Homework Assignments | 20% |
| 8/30, 9/11, 9/18, 9/25, 10/4, 10/18, 10/25, 11/1, 11/15, 11/22, 11/29 | |
| Midterm Exam 1 (October 11) | 25% |
| Midterm Exam 2 (November 8) | 25% |
| Final Exam (December 12, 8:30-10:20 AM) | 30% |
| A-85% above; B-76%-85%; C-66%-75%; D-65% below | |
- Note:** All exams are open notes, but close book.