

First Tentative Meeting August 20, 2013

Instructor:

Hector Erives; Phone: 505-835-5932; Email: erives@ee.nmt.edu.

Textbook :

Feedback Control of Dynamic Systems, Sixth Edition by Gene F. Franklin, J. David Powell, Abbas Emami-Naeini

Software:

MATLAB, Simulink, and LabView

Class Schedule:

TR 11:00 – 12:15, Workman 117

Office Hours:

M,W, F: 10:00-11:00 A.M, or by appointment

Prerequisites

Courses in and/or knowledge of Laplace transform, Complex numbers, Linear algebra, and ODE.

Course Overview:

The objective of the course is to develop an understanding of concepts and terminology associated with feedback control systems, modeling of dynamic systems, and system response and stability.

Grading:

- Homework: 40%
- Participation: 20%
- Mid-term project: Demonstration (10%) and Report (10%)
- Final project: Proposal, Presentation/Demonstration (10%) and Report (10%)

Notes: *A 20% deduction applies to late homework, demonstration, and reports.

***Graduate students are required to complete 3 projects during the semester.**

Topics:

- Overview of Feedback Control
- Dynamic Models
- Dynamic Response
- A First Analysis of Feedback
- The Root-Locus Design Method
- The Frequency-Response Design Method
- State Space Design