King Fahd University Of Petroleum & Minerals
Department of Electrical Engineering

EE 550 Linear Control Systems

Spring 2004 – 2005

Course Information

Instructor: **Dr. Samir A. Al Baiyat**

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GRADING:	Homework	15%
	Project	10%
	2 Major Exams	40%
	Final Exam	35%

INFORMATION: http://webcourses.kfupm.edu.sa.
TEXTBOOK Linear System Theory and Design, 3rd Edition, C. T. Chen

References
1. Linear System, Panos Antsaklis and Anthony Michel
2. Linear System, Thomas Kailath
3. Linear System Theory, W. Rugh

EXAMINATIONS: # 1: Saturday April 2, 2005
2: Saturday May 21, 2005

Objective: This course provides a basic understanding of linear multivariable systems through their modeling and analysis. Both continuous-time and discrete-time systems will be discussed in the course. After taking this course, the student will be in a position to move on to more advanced courses and topics in systems, control, communications and signal processing.

TENTATIVE COURSE OUTLINE

- Overview
- Mathematical Description of Systems
    - Input-Output Description
    - State-Variable Description
- State Space Solutions and Realization
- Stability of Linear Systems
- Controllability and Observability
- Canonical Decompostion
- Minimal Realizations
- State Feedback and State Estimators
- Other Topics as Time Allows