

King Fahd University Of Petroleum & Minerals
Department of Electrical Engineering

EE 550 Introduction to Modern Control

Spring 2001 2002

Course Information

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

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

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 Multivariable System, W. A. Wolovich

EXAMINATIONS: # 1: Tuesday March 19, 2002
2: Sunday May 5, 2002

TENTATIVE COURSE OUTLINE

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