KING FAHD UNIVERSITY OF PETROLEUM AND MINERALS
Department of Electrical Engineering

EE-520 Power System Steady State Analysis
Course Syllabus 141
Dr. Ibrahim Omar Habiballah

OFFICE	PHONE	OFFICE HOURS	E-MAIL
59-2080	4985	MW 10:10-10:45 am MW 12:25-12:50 pm	ibrahimh@kfupm.edu.sa

Course Timing: MW 5:00 - 6:15 pm **Course Location:** 59-2016

Textbook: Power System Analysis, by **Hadi Saadat,** McGraw Hill WCB, 3rd ed., 2010 & **Class Notes**

Chapters	No. of Weekes	Topics
2-3, 5	1	Basic Concepts; (Chapter 2, 3.2, 3.6, 5.2, 5.3 plus Notes) Per-Unit System (3.13,3.14)
6, 9	1	Power System Matrices (6.2 & 9.6 plus Notes)
Notes	1	Programming Considerations (Notes)
6	3	Power Flow Analysis (6.1-6.10)
9	2	Balanced Fault (9.1-9.5)
10	4	Symmetrical Components and Unbalanced Fault (10.1-10.9)
11	1	Stability (11.1-11.6)
	2	Term Paper (Project) Presentations

Grading:

Homework's	**:**	**20**
Midterm Exam 13th November (6:00-8:00 pm)	**:**	**25**
Term Paper/Project	**:**	**20**
Final Exam 30th December (7:00-10:00 pm)	**:**	**35**

Homework's:

Each student should work all home work problems on an individual basis; some of these problems may be taken at random for grading.

Term Paper:

Each student should prepare a formal term paper on the latest development in a subject related to one of the course materials and make short presentation in the class about his term paper. Students will be asked to participate in the evaluation process.

OR

Project:

The term project is to simulate analysis and planning cases for a practical power system. Each student must submit his written individual report before the end of the semester. Each student's performance is evaluated based on the submitted report, and on his case analysis results.