

# King Fahd University of Petroleum & Minerals

Electrical Engineering Department

## EE 465: Power System Transmission & Distribution (First Semester 051)

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### Course Objectives:

#### **The course presents basic engineering knowledge by teaching:**

The power system components. Steady state and Transient analysis of transmission lines. Underground cables. Overhead TL insulators, and distribution systems.

**Textbook:** POWER SYSTEM ANALYSIS & DESIGN 3<sup>rd</sup> Edition by GLOVER

**Instructor:** Dr. Z. Al-Hamouz  
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Office Hours: U, T: 1:15 am –2:15 pm  
M: 10:30 -11:30 am

**Grading System:**

Quizzes & Trips	(10%)
Major Exams	(40%)
Project Design	(20%)
Final Exam	(30%)

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### Tentative Class Schedule

Week #	Topics
1	Introduction
2-3	Transmission Line Parameters
4-5	Steady State Operation of Transmission Lines
	<b>Exam I</b>
6-7	Insulators
8-9	Transient Operation of Transmission Lines
10	DC Transmission
11-12	Underground Cables
	<b>Exam I</b>
14	Reactive Power Compensation
15	Distribution Systems
16	Projects Presentation

**Field Trip(s):** Visits to one of SEC Power plants and to the HV Laboratory at KFUPM.