

# King Fahd University of Petroleum & Minerals

Electrical Engineering Department

## EE 466: Power System Protection

---

**Textbook:** Power System Relaying by S.H. Horowitz

**Instructors:**

Dr. I. El-Amin

Office: 14 / 285, Tel #: 2290

[e-mail imelamin@kfupm.edu.sa](mailto:imelamin@kfupm.edu.sa)

Dr. A. Mantawy

Office 14-258-3 Tel # 4703

[amantawy@kfupm.edu.sa](mailto:amantawy@kfupm.edu.sa)

**Grading System:**

Assignments & Quizzes (15%)

Major Exams (30%)

Design Project (25%)

Final Exam (30%)

**Examination Dates**

**Major I**

**March 26, 2006**

**Major II**

**May 9, 2006**

---

### **Tentative Class Schedule**

<b>Week</b>	<b>Text</b>	<b>Topics</b>
1	Handout	Review of Symmetrical and Unsymmetrical Fault Calculations
2	Handout	Review of Symmetrical and Unsymmetrical Fault Calculations
3	1.1 – 1.7	Introduction to Protective Relaying
4	2.1 – 2.8	Relay Operating Principles
5	3.1, 3.2, 3.4, 3.6, 3.7	Current and Voltage Transformers,
6	7.1 – 7.14	Generators Protection
7	7.1 – 7.14	Motors Protection
8	8.1 – 8.3,	Transformer Protection
9	8.5, 8.6	Transformer Protection
10	4.1 – 4.7,	Non-Pilot Protection of Transmission Lines
11	5.1 – 5.3, 5.5, 5.8	Non-Pilot Distance Protection of Transmission Lines
12		<b>Project Proposals Formulation, and Introduction and learning of Protection Relaying Software</b>
13	6.1 – 6.6	Pilot Protection of Transmission Lines
14	9.1 – 9.13	Bus, Reactor and Capacitor Protection
15	Handouts	Coordination Studies