KING FAHD UNIVERSITY OF PETROLEUM AND MINERALS
Department of Electrical Engineering

EE-360 Electric Energy Engineering
Course Syllabus 152

Dr. Ibrahim Omar Habiballah

OFFICE	PHONE	OFFICE HOURS	E-MAIL
59-2080	4985	MW 11:20-11:50 am & 12:20-12:40pm	ibrahimh@kfupm.edu.sa

Course Timing: **Sec-1 MW 08:30-09:45am (59-2015)**
Sec-2 MW 10:00-11:15am (59-2018)
Sec-3 MW 12:45-02:00pm (59-1008)

Textbook: Principles of Electric Machines and Power Electronics, By: P.C. Sen, 2013, 3rd edition

Chapters	No. of Weeks	Topics	Home Work Problems
Appendix B.2-B.5	0.5	Review of Three-Phase Circuits	
1.1.1-1.1.5 & 1.2	2	Magnetic Circuits	T.B.A
2.1-2.6	3	Transformer	T.B.A
4.1-4.4	3	DC Machines	T.B.A
6.1, 6.3-6.5, 6.7	2.5	Synchronous Machines	T.B.A
5.1-5.3, 5.4.4, 5.7-5.10	2.5	Three-Phase Induction Motors	T.B.A
Notes	1.5	Transmission Lines & Cables	T.B.A

Grading:

Home Works (4), Quizzes (9), and Attendance (2)		**:**	**15**
Lab		**:**	**20**
Major-Exam I	**2nd March (6:30-8:00 pm)**	**:**	**15**
Major-Exam II	**11th April (6:30-8:00 pm)**	**:**	**15**
Design Project		**:**	**5**
Final Exam	**10th May (7:00-10:00pm)**	**:**	**30**

Each student should work all home work problems and the extra assignments assigned by the instructor on an individual basis; some of these problems may be taken at random for grading. A grade of zero will be given for any problem turned in late unless excused in advance. There will be a quiz related to each home work.

Project:

A design project will be assigned after the 3rd quarter of the semester. The details of the project will be elaborated by the instructor.

Laboratory & Problem Session Schedule

WEEK	TITLE
2	**EXP # 1**: INTRODUCTION TO CASSY LAB
3	**EXP # 2**: MAGNETIC CIRCUITS CHARACTERISTICS
4	**EXP # 3**: EQUIVALENT CIRCUIT AND PERFORMANCE EVALUATION OF SINGLE-PHASE TRANSFORMER
5	**EXP # 4**: THREE PHASE TRANSFORMERS
6	**PROBLEM SESSION # 1 (for MAJOR I)**
7	**EXP# 5**: DC MOTOR CHARACTERISTICS
8	**EXP # 6**: DC GENRATOR CHARACTERISTICS
9	**EXP # 7**: DETERMINATION OF PARAMETERS OF THREE PHASE SYNCHRONOUS GENERATORS
10	**Make-up Labs for excused absences**
11	**PROBLEM SESSION # 2 (for MAJOR II)**
12	**EXP # 8**: EQUIVALENT CIRCUIT, PERFORMANCE, AND TORQUE-SPEED CHARACTERISTICS OF 3-Φ INDUCTION MOTORS
13	**FINAL LAB EXAM**