EE 545 High Voltage Engineering

C O U R S E I N F O R M A T I O N

Prerequisites	Academic Year &Level		Teaching Methods			Credit Hrs.
	Year	Semester	Lecture	Tutorial	Lab.	
EE 441	5	9 or 10	2	2		3

C O U R S E A I M

To cover the high voltage aspects of electrical power engineering which include transient phenomena, high voltage testing and insulation coordination.

C O U R S E W E E K L Y C O N T E N T S

1 Generation of High voltage DC
2 Generation of AC High Voltage
3 Generation of Impulse Voltages .
4 Measurements of High Voltages
5 Sources of Transients in Power Systems
6 Travelling Waves
7 Lattice Diagram + Midterm Exam
8 Insulations (1).
9 Insulations (2)
10 Surge Arresters
11 High Voltage Circuit Breakers
12 12th week Assessment + Gas Insulated Switchgear "Self Learning"
13 Insulation Coordination.
14 Testing
15 HVDC

S T U D E N T G R A D I N G & A S S E S S M E N T

Weeks	Exams		Assign.	Quizzes	Reports	Present.	Lab.	Total
1 to 7	20	Midterm	←	10 MARKS To be freely distributed among possible assessments			→	30
8 to 12	←			20 MARKS			→	20
13 to 15	←			10 MARKS			→	10
16 or 17	40	Final						40
Total	Exams		Assign.	Quizzes	Reports	Present.	Lab.	100

R E F E R E N C E S

Textbook M. Khalif, “High Voltage Engineering ", Marcel Dekker Inc, New York.

Other J. Glover & M. Sarma , “Power System Analysis and Design”, PWC Publishers, Boston.
Kuffel and W. Zaengle, “High Voltage Engineering”, Pergammon Press, U.K..
B. Gungor, “Power Systems”, TBJ Publishers, New York.
K. R. Padiyar, “HVDC Power Transmission Systems”, Wiley Eastern Limited.
M.A. Khalifa, “High Voltage Engineering, Theory and Practice”.