ECE470 POWER SYSTEMS I
Course Outline

Instructor: Dr. Cliff Grigg
Office: D206
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Required Text: **Course Notes for ECE470 Power Systems I** - Cliff Grigg
Recommended: **Electromechanical Energy Devices & Power Systems** - Yamayee
(This book is on reserve in the library)

Grading: Grades will be assigned according to the following schedule:

90 - 100	A
85 - 90	B+
80 - 85	B
75 - 80	C+
70 - 75	C
65 - 70	D+
60 - 65	D
Below 60	F

Final Exam	40	
2 x 50 min. tests	30	(15 each)
Labs	20	
Homework	10	
Total	100	

Webpage: http://www.rose-hulman.edu/class/ee/HTML/ECE470/

Attendance: All students are expected to attend **all** lectures unless they have a valid reason for absence. Illness is not an acceptable reason for absence (or missing a test) unless accompanied by medical certification. All students are **REQUIRED** to perform every laboratory; missing a lab without making it up will result in failure of the course. Work missed (including tests) due to unauthorized absence may not be made-up. Tests missed due to authorized absence will be made-up by the final exam grade.

Honor Code: Both tests and the final exam must be the student's own work. Failure to comply with this requirement results in an automatic course failure for all parties concerned, and recommendation for further disciplinary action. **NO SECOND CHANCES** Students are encouraged to do homework together and to study together, bear in mind that outright copying of homework solutions is counter-productive to learning the material.

Tests and exams: You will be permitted to use all personal notes written in your own handwriting (but not homework solutions or the textbook) during the one hour tests and the final exam. However, no time will be allocated for referring to notes etc. In other words, you should prepare for tests as though they were closed-book so that you can finish on-time; reference material should only be a back-up. Laptop computers which are not networked can also be used.

Homework is divided into reading assignments and problem assignments. A schedule is attached below. Reading is a very important part of learning the material, simply working examples produces **superficial** learning while reading produces **in-depth** learning. Read the assigned material **before** it is covered in class; don't worry if you don't understand it completely when you first read it, this will get you ready to ask questions in class and to learn from other people's questions. If you don't understand the material **after** it is covered in class **come and see me.** Problem assignments will be given on a weekly basis. Homework problems should be studied collectively, but must be written-up and submitted individually. Do not copy homework solutions this is counter-productive to the learning process. All written work will be will be due one week following its assignment. All assigned work is due at the start of the lecture; **late work, including homework worked on in class, will be penalized 25% per day.**

Partial credit will only be awarded for explanation of the solution procedure followed. Work will be graded according to the following policy:

100% - correct answer with well documented procedure
80 - 90% - arithmetic errors with well documented procedure
70 - 80% - correct answer with poorly documented procedure
30 - 50% - wrong answer, approach partially correct & well documented
0% - wrong answer with poorly documented procedure

Labs: In the first half of the quarter the lab work will consist of conventional lab exercises, requiring everyone to be in the lab at the same time. Most of the labs in the second half of the quarter will be computer simulations using standard software packages and can be performed in or out of lab at any time. All students are **REQUIRED** to perform every laboratory; missing a lab without making it up will result in failure of the course.

READING SCHEDULE

Course notes are indicated by Pgs:

Yamayee & Bala is indicated by Y:

Week #	Reading Assignments	
1	Y: Chs 1 - 3,	Pgs: 1 - 10
2	Y: Ch 7,	Pgs: 11 - 21
3	Y: Ch 9.1 - 9.3,	Pgs: 23 - 37
4	Y: Ch 9.4 - 9.5,	Pgs: 38 - 52
5	Y: Ch 4,	Pgs: 53 - 59
6	Y: Ch 10.1 - 10.2.2,	Appendix
7	Y: Ch 10.2.3 - 10.3,	Pgs: 60 - 74
8	Y: Ch 11.1-11.2.1,	Pgs: 75 - 87
9	Y: Ch 11.2.2-11.2.3,	Pgs: 88 - 96
10		Pgs: 97 - 102