

# ECE370 POWER & ENERGY SYSTEMS

## Course Outline

**Instructor:** Dr. Cliff Grigg  
**Office:** D206  
**Phone:** Ext. 8333 (campus)  
**Required Text:** Course Notes - Dr. Grigg  
**Recommended:** Electromechanical Energy Devices & Power Systems  
by Yamayee & Bala  
Electric Energy An Introduction  
by El-Sharkawi

**Webpage:** A link to the course webpage which will have homework hints, old tests, and supplemental material can be found at: <http://www.rose-hulman.edu/class/ee/HTML/ECE370/>  
A Moodle page is also being developed.

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

90 - 100	A		
85 - 90	B+	Final Exam	40
80 - 85	B	2 x 50 min. tests	30
75 - 80	C+	Labs	15
70 - 85	C	<u>Homework &amp; Quizzes</u>	<u>15</u>
65 - 70	D+	Total	100
60 - 65	D		
Below 60	F		

**Partial credit:** will only be awarded for explanation of the solution procedure that was followed i.e. a poor explanation will get no partial credit. 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

**Honor Code:** Both tests and the final exam must be the student's own work. Failure to comply with this requirement will result in 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 keeping in mind that outright copying of homework solutions is counter-productive to learning the material.

**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 and quizzes missed due to authorized absence will be made-up by the final exam grade; tests and quizzes missed due to unauthorized absence will receive a grade of zero.

**Tests and exams:** You are expected to be able to solve linear equations and to perform basic complex algebra on your calculator. Laptops should only be used to check your homework results as they will not be available for the tests. On the tests you may use one 8½ x 11 page of notes (both sides, not photo-reduced) that you have made but may not use anyone else's notes; four pages can be used on 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.

**Homework:** Homework is collected weekly. Completed homework assignments are due at the **START** of the class period indicated in the schedule in the calendar of the webpage. **Homework done in the lecture period will not be accepted.** Drop your assignment on the instructor's bench as you enter the class. Since homework solutions are posted on the website, **late assignments will not be accepted.** Turn in your homework early if you will be away for job interviews, athletic events, etc. Note that homework is divided into reading assignments and problem assignments. 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.**

**Quizzes:** These will usually be administered at the start of the lab period; consequently arriving late for lab will seriously affect your course grade. Quizzes missed due to authorized absence will be made-up by the final exam grade; quizzes missed due to unauthorized absence will receive a grade of zero.

**Lab Performance:** You will work in pairs and perform five lab experiments (two will be two-week labs); each lab experiment must be documented in a lab notebook in lab log format, only one book per lab pair is necessary. The lab performance grade will be based on: punctuality, pre-lab assignments, and the lab notebook. Lab Reports will take the form of computer simulations of the laboratory experiments on Transformers and Induction Motors. Specific instructions will be given regarding documentation.