UAB SCHOOL OF ENGINEERING  
DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING  

Course: EE 316, Electrical Networks  
Term: Summer Semester 2006  
Class Times: (4A) Tuesdays and Thursdays, 3:00 pm to 5:05 pm  
Thursday 1 June 2006 through Tuesday 1 August 2006  
(no class on Tuesday 4 July)  
Final Exam: Thursday 3 August 2006, 4:15 p.m. - 6:45 pm  
Classroom: BEC 355  
Instructor: Jon Marstrander  
Instructor Web Site: http://www-ece.eng.uab.edu/jmars/  
Course Web Site: http://www-ece.eng.uab.edu/jmars/courses/ee316_06b/  
Textbook: Basic Engineering Circuit Analysis by J. David Irwin  
(7th or 8th Edition)  

Class Attendance: Each student is expected to attend each class meeting and is, therefore, responsible for everything covered in each meeting of the class as well as for all out-of-class assignments. Please note that each student is expected to be in his/her seat at the beginning of class. The use of cell phones during class is extremely disruptive. Please turn them off, or place them in silent mode if you must be reachable during class time.  

Examinations: Examinations are closed book, closed note, and closed reference with the exception of some of the later exams and the final exam where a Laplace transforms table may be used. Exams will normally be graded on correct-answer-only. No makeup examination will be given unless the student has made arrangements with the Instructor prior to the examination. Consent for a makeup examination will not be granted unless "good cause" is demonstrated to the satisfaction of the Instructor prior to the examination. Any use of cell phones or any other communication devices during an exam will not be tolerated, and will be considered grounds for an immediate failing grade on the exam.  

Class Cancellation Policy: Should a class meeting scheduled for a day on which either an examination is to be given or a group problem session is scheduled be cancelled because UAB is closed, the examination or group problem will be rescheduled for the next meeting of the class. The cancellation of a class meeting prior to the day of an examination or a group problem session will not delay the examination or group problem session from its originally-scheduled date.  

Problems Assigned for Computer Solution: Two problems will be assigned that must be solved using PSpice and submitted for grading at the beginning of the specified class meeting. Submitted solutions must be the student's own work. Failure to submit a solution at the assigned period will result in the automatic assignment of a grade of zero for the assignment. Failure to submit a solution for each problem will be grounds for automatic failure in the course.
**Homework:** All problems, other than the two assigned computer problems that are to be submitted for grading, are provided for the benefit of the student and will not be taken up and graded. It is in the “best interest” of each student to work all assigned homework problems before coming to a Problem Session. Students can improve their understanding of the assigned problems by working together in groups at set times each week.

**Laboratory:** The laboratory activity will be an independent part of the total course. The laboratory grade will be counted as a part of the total course grade. Students must pass the laboratory component in order to pass the total course. A student failing the laboratory component will be given a grade of “F” in the course. A student passing the laboratory component will be given a “number grade” by the Laboratory Instructor that will be incorporated into total course grade.

**Academic Misconduct:** Academic misconduct (i.e. plagiarism or cheating) on examinations and computer problem assignments will not be tolerated. Any student involved in academic misconduct will be prosecuted to the full extent allowed under university policy. This penalty will include an automatic grade of “F” in the course without the opportunity for withdrawal. If the offense is the second offense at UAB, permanent dismissal from UAB will result.

**Audits:** Students are advised of the following requirement stated in the Undergraduate Catalog. “Provided the instructor’s requirements are met, the course will appear on the transcript with the notation AU and zero semester hours’ credit. If the requirements are not met, a W will be entered on the transcript.”

An EE 316 student registering as an “Audit” or converting to “Audit” during the term must take all examinations including the final examination and submit solutions for all PSpice assignments.

**Calculator Policy:** Use of calculators, and the type of calculators may be limited on a per-exam basis. On many exams, the student will be limited to a simple calculator, capable of computing basic scientific functions, but without any storage or communication capabilities.
**Grade Computation:** The final grade for the course will be based upon the following items.

<table>
<thead>
<tr>
<th>Item</th>
<th>Points</th>
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<tbody>
<tr>
<td>EE 314 Proficiency Exam</td>
<td>150</td>
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<tr>
<td>3 Examinations @ 150 Points Each</td>
<td>450</td>
</tr>
<tr>
<td>2 Computer Problems @ 20 Points Each</td>
<td>40</td>
</tr>
<tr>
<td>2 Group Problem Assignments @ 20 Points Each</td>
<td>40</td>
</tr>
<tr>
<td>Board Assignment</td>
<td>20</td>
</tr>
<tr>
<td>Laboratory</td>
<td>200</td>
</tr>
<tr>
<td>Final Examination</td>
<td>100</td>
</tr>
<tr>
<td><strong>TOTAL POINTS</strong></td>
<td><strong>1,000</strong></td>
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**Assignment of Final Grades:** Final grades will be assigned as follows.

- from 900 points to 1,000 points = A
- from 800 points to 899 points = B
- from 700 points to 799 points = C
- from 600 points to 699 points = D
- below 600 points = F

Any reduction in the minimum number of points required for a specific letter grade will be the result of scaling at the end of the term, will be based on the total grades for the term and not any individual examination, and will be at the discretion of the Instructor.

**Electronic Mail:** Each student must check his/her UAB Blazer email account each weekday to determine if the instructor has forwarded any class-specific email. Email sent to the uab student account is to be considered official communications regarding the course.

**Board Assignment:** One or more students will be assigned a problem to work and present to the class in a formal “lecture style” at Problem Sessions. (Each student will have one problem to present to the class during the term.) These presentations are to include handouts for the class.

**Other Policies:** All other official policies, as posted on the instructor’s website are included by referenced.
Objective and Outcomes: The student is referred to the Department of Electrical Engineering Advising brochure. This brochure lists the desired outcomes and objectives for a student in the department.

As stated in the brochure, the department Objectives are:

The Electrical Engineering undergraduate program prepares graduates to
A. succeed in a career in electrical engineering or in further education,
B. approach problem-solving with an engineering mindset, and
C. grow professionally.

Please note that this course is designed to produce a large number of outcomes in each of you, to support the program objectives. Your performance in this class, will be measured against these outcomes. These outcomes are listed here, for your reference.

(1) Students will apply knowledge of mathematics, science, and engineering to the analysis of electrical engineering problems.
(2) Students will design and conduct scientific and engineering experiments, as well as analyze and interpret data.
(4) Students will be required to participate on a multidisciplinary team activity.
(5) Students will be provided with an ability to identify, formulate, and solve electrical engineering problems.
(6) Students will be provided with an understanding of professional and ethical responsibility.
(7) Students will be provided with an opportunity to convey technical material through formal written work products which satisfy accepted standards for writing style.
(8) Students will be provided with an opportunity to convey technical material through oral presentations and interaction with an audience – the class.
(9) Students will be provided with an opportunity to demonstrate a broad education and knowledge of contemporary issues necessary to understand the impact of electrical engineering solutions in a global and societal context.
(10) Students will be confronted with the need for engaging in life-long learning and be introduced to skills that will assist in life-long learning.
(11) Students will be provided with an ability to use modern engineering techniques, skills, and tools, including computer-based tools for analysis and design.
(12) Students will be provided with a knowledge of mathematics through differential equations and complex variables.