ECE225  Circuit Analysis
(Zheng Yang; Department of Electrical and Computer Engineering; Summer, 2013)

Course Hours: 10:45~13:15 Tuesday and Thursday at LH 206 (CRN: 13841)
Lab Hours: 13:30~16:00 Tuesday and Thursday at SEL 3250 (CRN: 13844)
Course website: http://www.ece.uic.edu/~zyang/Teaching/20122013Summer/index.html

Instructor: Prof. Zheng Yang (yangzhen@uic.edu)
Instructor Office Hours: 9:30~10:30 Tuesday and Thursday at ERF 3017
Course Teaching Assistant: Chenjie Tang (ctang21@uic.edu)
Course TA Office Hours: 14:00~15:30 Monday, Wednesday, and Friday at SEL 4225
Lab Teaching Assistant: Ketaki Sarkar (ksarka3@uic.edu)
Lab TA Office Hours: 16:00~16:30 Tuesday and Thursday at SEL 3250
Course Advisory Board: Dr. Vahe Caliskan, Kim Fitzgerald, Dr. Vladimir Goncharoff


Course Description (with tentative topics) Basic electric circuit variables and elements; Ohm’s Law; Kirchhoff’s Laws and circuit topology (nodes, loops); Equivalent transformations of circuits (series, parallel), input impedance, voltage and current division rules, superposition principle; Thévenin and Norton equivalent circuits and source transformations; transient and steady-state analysis of circuits, impulse response; Linear amplifiers and circuits with dependent sources; AC steady state, phasors, impedances, frequency characteristics of circuits; Laplace Transform (simplified), solution of differential equations; network theorems. Laboratory.

Prerequisites MATH 220; and Grade of C or better in PHYS 142; and Grade of C or better in ECE 115.
Homework Totally twelve homework will be assigned and the solutions will be posted after the due date. Homework assignments will be collected at the beginning of the class on the due date. NO LATE HOMEWORK will be accepted!

Quizzes Quizzes will be based on homework assignments and lecture material. Quizzes will be given at the beginning of every class except on exam days and first class. NO MAKEUP QUIZZES will be given!

Exams Exams including two Midterms and one Final exam will be based on homework and material covered in lectures. No make-up exams will be given. The first Midterm is scheduled on Tuesday 07/02/2013. The second Midterm is scheduled on Tuesday 07/23/2013. The Final exam is tentatively scheduled on 08/08/2013. NO MAKEUP EXAMS will be given!

Laboratory Laboratory session will be led by TA Ketaki Sarkar. Lab section starts on the second class day 06/20/2013, and ends on the second last class day 08/01/2013. Totally twelve labs will be given. Lab reports will be collected at the end of each lab section. NO LATE LAB REPORTS will be accepted!

Grading Your grade for the course will be determined by your performance in homework, quizzes, Midterms, Finals, and laboratory reports. Here are the relative weights for each component:

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework (twelve)</td>
<td>10%</td>
</tr>
<tr>
<td>Quizzes (eleven drop one lowest)</td>
<td>15%</td>
</tr>
<tr>
<td>Laboratory Reports (twelve)</td>
<td>20%</td>
</tr>
<tr>
<td>Midterms</td>
<td>15%×2</td>
</tr>
<tr>
<td>Final Exam</td>
<td>25%</td>
</tr>
</tbody>
</table>

Unless otherwise noted, a straight scale is used to determine the grades with A = 90–100%, B = 80–89%, C = 70–79%, D = 60–69%, F = 0–59%.