Distance Offering EE 305 - Summer 2007
Fundamentals of Circuits and Devices

3.0 Credits
Prerequisite: PHYS 212
Instructor:

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Objectives:

This course provides fundamental education in electrical circuit analysis techniques to non-electrical engineering majors. Students should be able to do the following upon completion of this course:

1. Analyze simple DC resistive circuits using Ohm's law, Kirchhoff's current and voltage laws.
2. Analyze DC circuits containing independent sources using node-voltage & mesh-current methods.
3. Understand difference between ideal sources and practical sources.
4. Understand Thevenin and Norton equivalent circuits, superposition, and source transformation techniques.
5. Learn to combine multiple capacitors or inductors into equivalent elements.
6. Analyze simple DC circuits to find energy stored in capacitors and inductors.
7. Analyze the natural and step (Transient) responses of series RL, RC circuits.
8. Analyze basic AC circuits using phasor analysis.
9. Learn concepts of complex power and residential electrical service.
10. Analyze basic Op-Amp circuits.

ANGEL Course Web site: See EE 305 Summer 2007 listed under MY GROUPS

Textbook:

ISBN 0072962984

Exams: (proctors must be secured for each exam)

Proctor information for Midterm and Final exams must be submitted by 6/11/07
see Proctor Sheet Folder for more detail

Midterm: Must be taken 6/27-29/07

Final: Final Exam must be taken by 8/15/07

Grading Policy:

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<tr>
<th>Component</th>
<th>Weight</th>
<th>Description</th>
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<tbody>
<tr>
<td>Homework</td>
<td>30%</td>
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<tr>
<td>Quizzes</td>
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<td>Midterm</td>
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<td>Final</td>
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March 26, 2007