Website: http://csserver.evansville.edu/~blandford


Software:
1. LTSpice, This is available on the network in the labs and can be downloaded for personal use from http://www.linear.com/designtools/software/ltspice.jsp
2. Matlab V.8.1.604 Release 2016b This is available on the network in the labs as the professional edition. If you want to use this on a home computer a student version is available for about $100 dollars.

Lab Kits:
Each student is required to purchase a tookkit consisting of breadboard, oscilloscope probes, meter leads, etc. The kit is available from the Electrical Engineering Department Office. See Mrs. Vicky Hasenour in KC 266.

Course Structure:
This course meets from 8 to 10:15am on Tuesday and Thursday mornings. The course is taught in an integrated lab/lecture format. The lab portion of the course will be done in teams of two.

Notebooks:
Each lab team will keep a notebook in which all lab activity is recorded. This notebook will be periodically collected and graded. Notebooks are available in the department office.

Exams:
All exams are open book and open notes. Students may not share notes, books, or calculators during exams.

Reading Assignments:
Reading assignments for each class session are printed on the attached schedule. Each student is expected to have read the assigned material before attending class.

Grading:
This class has three hour exams, graded homework, graded projects, a graded notebook, two graded lab practical exams, and a two-hour comprehensive final exam. Unannounced quizzes over lab projects will be counted as part of the homework grade. The three exams will count 56%, the graded homework and the projects will count 20%, the notebook grade will count 5%, and the final exam will count 19%. Some of the design projects will be done in multidisciplinary teams. All students must pass the lab practical exam in order to pass the course regardless of exam grades. The lab practical may be repeated.

Contact Information:
Email: blandford@evansville.edu
Phone: 812-479-2291
Office: KC 266A

Final exam is Friday, December 8 at 4:30pm
<table>
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<tr>
<th>Tuesday</th>
<th>Thursday</th>
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| Aug. 24 | Ch 1 pp. 3-23  
Intro and overview  
Charge, current, voltage, power and energy  
Lab 1: |
| Aug. 29 | Ch 1-2 pp. 17-43  
The electric bill  
Ohm's Law, Nodes branches and loops  
Kirchhoff's Laws  
Lab 2: |
| Sept. 5 | Ch 2 pp. 58-64  
dc meter movements and loading, Review  
Lab 4: |
| Sept. 12 | Ch 3 pp. 80-95  
Nodal analysis with current and voltage sources  
Lab 5: |
| Sept. 19 | Ch 3-4 pp. 98-110, 126-137  
Analysis by inspection  
Linearity property, Superposition  
Lab 7: |
| Sept. 26 | Ch 4-5 pp. 148-157, 174-183  
Maximum Power Transfer  
Intro to Op amps. Inverting and noninverting amplifier  
Lab 9: |
| Oct. 3 | Ch 5 pp. 174-197  
Op amps, Review  
Lab 9: |
| Oct. 10 | Ch 5-6 pp. 214-231  
Capacitors and inductors  
Lab 11:  
Fall Break |
| Oct. 17 | Ch.6 pp. 231-237  
Applications of capacitors and inductors in op amps  
Lab 12: |
| Oct. 24 | Ch 7 pp. 263-282  
Impulse and step response of RC and RL circuits  
Lab 14: |
| Oct. 31 | Ch 8 pp. 312-324  
Initial values,  
Source free series RLC circuits  
Lab 16: |
| Nov. 7 | Ch 9 pp. 385-400  
impedance and admittance, the frequency domain  
Lab 19:  
Lab Practical |
| Nov. 14 | Ch 9 pp. 368-394  
Sinusoids and phasors  
Lab 18:  
Hour Exam 3 |
| Nov. 21 | Ch 9 pp. 385-400  
impedance and admittance, the frequency domain  
Lab 19: |
| Nov. 28 | Ch 10 pp.412-424  
Nodal Analysis, complex numbers  
Thevenin's Theorem |
| Nov. 23 | Thanksgiving |
| Nov. 30 | Ch 10 pp.494-438  
Thevenin, LT Spice AC analysis |
| Dec. 5 | Course review |

Final exam is Friday, December 8 at 4:30am