ENGE 250 Electric Circuit Analysis
4 credits — Lecture MWF 2:40–3:30PM in EHS102
Lab Tues 8:40–10:30AM (A), 10:40AM–12:30PM (B) in WMR106

Dr. John Natzke
Office: WMR211 Hours: M 3:40-4:30PM, W 11:40-12:30PM, 1:40-2:30PM, F 1:40-2:30PM
Phone: 503-554-2783

Text
• The Book of Mark.

Objectives
• To introduce the electrical properties and subsequent models of passive circuit elements, namely resistors, inductors, and capacitors.
• To study the necessary theorems and techniques to perform DC and AC analysis and design of a variety of circuit configurations. Included are power and frequency response analysis.
• To become proficient in electronic measurement techniques and experimental procedures.
• To become familiar with computer-aided circuit analysis tools.
• Chapters to be covered in Irwin text: 1–9, selected topics from 12.
• To participate in the Engineering Your Soul (EYS) reading schedule for Mark; see http://engr.georgefox.edu/EYS.

Assignments
Readings and homework will be given for each chapter, listed on the course web page on the engineering wiki. Homework is due at the beginning of the designated class period; no late homeworks are accepted.

Lab Experiments & Project
The lab experience will consist of 10 experiments and a final project. The experiments must be performed during the scheduled lab times on Tuesday. Most of them will require a lab report, due one week later. No late reports will be accepted.

Calculator
The TI-89 or equivalent is strongly recommended for this course.

Course Web Page
http://engr.georgefox.edu/ENGE250

Exam Schedule
Exam 1 Feb. 16
Exam 2 Apr. 6
Final Exam Fri., Apr. 29, 1:00PM

Grading

<table>
<thead>
<tr>
<th>Percent Breakdown</th>
<th>Scale</th>
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<tbody>
<tr>
<td>Homework 15</td>
<td>A 91-100 %</td>
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<tr>
<td>Laboratory &amp; Project 30</td>
<td>A– 89-90</td>
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<td>Exams (3) 55</td>
<td>B+ 87-88</td>
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<td>B 81-86</td>
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<td>B– 79-80</td>
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“In the beginning God created the heavens and the earth. … God saw all that he had made, and it was very good.”
Genesis 1:1,31
Engineering Your Soul
The third mission objective of the George Fox University Engineering program states:

GFU Engineers will understand responsible service from a Christian worldview that emphasizes integrity in every aspect of this service, motivates individuals to a life of responsible service to humankind, and recognizes the need for a life of continued learning.

As one step towards the fulfillment of this objective, the engineering faculty is excited to present a new initiative. Each semester, we will collectively identify an influential Christian writing to be read and reflected upon by all engineering faculty and students throughout the term. This will be treated as an official component of every engineering course and will be uniquely integrated and assessed at the discretion of each course instructor.

As we explore a new book this semester, students will be assessed for their participation in class discussions and assignments. It is our hope that students will not view this as one more task to complete, but as a catalyst for continued discussion ultimately leading to a deeper experience of Jesus Christ.

Disability Services Information
If you have specific physical, psychiatric, or learning disabilities and require accommodations, please contact the Disability Services Office as early as possible so that your learning needs may be appropriately met. You will need to provide current documentation of your disability to the Disability Services Office. For more information, go to ds.georgefox.edu or contact Rick Muthiah, Dean of Learning Support Services (503-554-2314 or rmuthiah@georgefox.edu).

Academic Resource Center
The Academic Resource Center (ARC) on the Newberg campus provides all students with free writing consultation, academic coaching, and learning strategies (e.g., techniques to improve reading, note-taking, study, time management). The ARC, housed on the second floor of the Murdock Learning Resources Center (library), is open from 1:00-10:00 p.m., Monday through Thursday, and 12:00-4:00 p.m. on Friday. Call 503-554-2327 or email the_arc@georgefox.edu to schedule an appointment. Visit arc.georgefox.edu for information about ARC Consultants’ areas of study, instructions for scheduling an appointment, and helpful learning tools.