MICROPROCESSORS
ENGE420 - Spring 2016

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Course Description:
4 hours. Principles of hardware and software microcomputer interfacing. Microprocessor characteristics, memory peripheral devices, microcomputer structures, and I/O interface device control. Assembly language programming. Three lectures and one three-hour laboratory per week.

Required Texts:

Quizzes:
Quiz questions will also be provided that test comprehension of the assigned readings and lecture. At the beginning of each class period, students will take a short quiz generally consisting of five of the quiz questions.
Quizzes that are not turned in count double for the purpose of calculating grades.

Homework:
Homework assignments will be assigned throughout the semester. While students may not copy homework assignments, students are encouraged to work together to complete the assignments.
Homework assignments that are not turned in count double for the purpose of calculating grades.

Course Web Page:
http://engr.georgefox.edu/Courses/ENGE420

Course E-mail list:
This term we will be using Piazza for class discussion. The system is highly catered to getting you help fast and efficiently from classmates, and the instructor. Rather than emailing questions to the teaching staff, I encourage you to post your questions on Piazza. If you have any problems or feedback for the developers, email team@piazza.com. Find our class page at: http://www.piazza.com/georgefox/spring2016/enge420.

Programming Assignments:
Students will be given a number of programming assignments. As this is a programming class, assignments will be graded on their functionality as well as their structure and documentation. Assignments turned in late will be reduced 25% for any part of each day that they are late. Assignments are not all worth identical points. All assignments must be completed. Incomplete assignments will result in an overall letter grade drop for each incomplete assignment.

Lab Experiments:
The lab experience will consist of a number of tutorials/laboratories which must be performed during the scheduled lab times in WMR 104.

Design Projects:
Students will be assigned an individual final design project.
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 another Engineering Your Soul reading. Each semester, we collectively identify an influential Christian writing to be read and reflected upon by all engineering faculty and students throughout the term. Each faculty member will uniquely integrate the book’s content and assess student involvement.

There are 4 EYS discussion meetings during the year. There are also 4 reflections due and students are encouraged to comment on the posts of others. An EYS Piazza “course” has been setup, http://piazza.com/georgefox/fall2016/eyes/home, where all students can submit reflections and comments. To receive credit for a reflection,…

- tag your post with the folders for the due date and the course(s) you attend.
- each reflection (not a summary!) should be 1-2 paragraphs.
- do not post anonymously because a search will not pick up your name. If you would prefer to remain anonymous, send a private note to me in Piazza, and I’ll post it for you.
- your reflection must be submitted by 11:59 pm on the days indicated on the EYS schedule.

Each reflection, response to a reflection, or meeting attendance rewards you with 1 credit. You can earn up to 3 credits for each reading cycle. 8 credits are required to obtain a full EYS score for the semester.

Grading:
The course grade will be based on the following point system.
Any missed assignments will count double towards the cumulative average.

<table>
<thead>
<tr>
<th>Points Breakdown</th>
<th>Projected Scale</th>
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<tbody>
<tr>
<td>Quizzes</td>
<td>A 1350</td>
</tr>
<tr>
<td>Homeworks</td>
<td>B+ 1335</td>
</tr>
<tr>
<td>EYS</td>
<td>B 1200</td>
</tr>
<tr>
<td>Laboratory</td>
<td>C+ 1185</td>
</tr>
<tr>
<td>Project</td>
<td>C 1050</td>
</tr>
<tr>
<td>Programs</td>
<td>D+ 1035</td>
</tr>
<tr>
<td>Total</td>
<td>D 900</td>
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ABET Visit
In Fall 2016, the Engineering Program will be visited by our accreditation body, ABET. During their visit, the Program Evaluators will review examples of student work in each engineering course. Therefore, throughout this semester, various examples of your work will be scanned.

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 Disability Services. For more information, contact Rick Muthiah, Director of Disability Services (ext. 2314 or rmuthiah@georgefox.edu), or go to ds.georgefox.edu for more information.

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.