Syllabus

EGR 110 - Introduction to Engineering – Fall Semester, 2012

UNIVERSITY OF PORTLAND - SCHOOL OF ENGINEERING

Faculty:

<table>
<thead>
<tr>
<th>Section</th>
<th>Time</th>
<th>Instructor</th>
<th>Phone</th>
<th>Email</th>
<th>Office*</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>9:15-10:10 MWF</td>
<td>Dr. Tammy VanDeGrift</td>
<td>x7256</td>
<td><a href="mailto:vandegri@up.edu">vandegri@up.edu</a></td>
<td>228</td>
</tr>
<tr>
<td>B</td>
<td>11:25-12:20 MWF</td>
<td>Dr. Joseph Hoffbeck</td>
<td>x7428</td>
<td><a href="mailto:hoffbeck@up.edu">hoffbeck@up.edu</a></td>
<td>212</td>
</tr>
<tr>
<td>C</td>
<td>12:30-1:25 MWF</td>
<td>Dr. Aziz Inan</td>
<td>x7429</td>
<td><a href="mailto:ainan@up.edu">ainan@up.edu</a></td>
<td>215</td>
</tr>
<tr>
<td>D</td>
<td>12:30-1:25 MWF</td>
<td>Dr. James Male</td>
<td>x7176</td>
<td><a href="mailto:male@up.edu">male@up.edu</a></td>
<td>213</td>
</tr>
<tr>
<td>E</td>
<td>1:35-2:30 MWF</td>
<td>Dr. Mark Kennedy</td>
<td>x8070</td>
<td><a href="mailto:kennedy@up.edu">kennedy@up.edu</a></td>
<td>210</td>
</tr>
<tr>
<td>F</td>
<td>2:40–3:35 MWF</td>
<td>Dr. Wayne Lu</td>
<td>x7140</td>
<td><a href="mailto:lu@up.edu">lu@up.edu</a></td>
<td>234</td>
</tr>
</tbody>
</table>

*All offices in Shiley Hall

Office Hours: M 9:15-10:15 & 14:30-15:30; T 14:30-15:30; W 11:15-12:15; F 9:15-10:15

Workshop Coordinator: Craig Henry, henry@up.edu, Shiley 117, x8972, Hours: 8:30 – 4:30

Shop Supervisor: Allen Hansen, hansena@up.edu, x8626

Web Site: http://teaching.up.edu/egr110/

Reading: Shiley School of Engineering Writing for Engineers, Students Handbook, as well as various assigned readings.

Course Objectives: At the end of the semester students will:

- Have an understanding of the engineering profession, the different functions and branches of engineering, the role of an engineer in society, and the purpose and form of engineering education.

- Have learned and practiced the steps of creative engineering design.

- Know how to organize, schedule and complete an engineering design project.

- Have learned and practiced communication of relevant information in written, oral, graphical and sketched form.

- Have an understanding of University’s Code of Academic Integrity.

Project Workshops: Most project workshops will be scheduled during the regular class time. The workshops are intended to assist in designing and building a device for the course project. It is expected that you meet with your team to work on the project. Several class sessions are available for team meetings.
Peer-led Workshops: As part of this course, students are required to participate in workshops conducted by upper-class students (EGR 001). The classes are smaller than the full EGR 110 section, and focus on a variety of topics essential to success at UP. Five percent of your grade in EGR 110 will be based on your performance in these sessions.

Attendance: Attendance in class is required, as well as at workshops. Some evening sessions may be required, and engineering clubs generally meet in the evenings.

Reading Assignments: You are expected to complete reading assignments before the class period. Reading assignments will be covered on occasional quizzes.

Team Updates: Each team should update the instructor by sending a weekly email message to the instructor and cc the teammates. The message should include the team’s accomplishments during the week, the team’s plans for the coming week, and the team’s concerns/challenges. One person per team will be responsible for this message and the responsibility will rotate each week. Note: one message per team per week. Please ask your instructor for any other possible requests.

Requirements and Grading:

- Occasional quizzes/assignments: 5%
- Balsa frame test: 5%
- Workshop 3 and 4: 5%
- Advising Assignment: 5%
- Ethics Assignment: 5%
- Team Updates: 5%
- Attendance: 5%
- Project (See project write-up):
  - Design report (draft): 15%
  - Design report (final): 15%
  - Oral presentation: 10%
  - Final memo: 5%
- Peer-led workshop performance: 5%
- Attendance at one student chapter meeting: 5%
- Subjective assessment (teamwork assessment, class behavior, etc.): 10%

Tentatively, grades will be distributed according to the following scale:

- A-,A: 90-100
- B-,B,B+: 80-89
- C-,C,C+: 70-79
- D-,D,D+: 60-69

Course Project: A course project will be introduced during the first week of class. Students will work on the project in teams throughout the semester. Each student will prepare individually a design report described in the project write-up. On Saturday 1 Dec. teams will participate in a design competition, vying for prize categories. During the last week of classes, each group will give an oral presentation on its device. A memo summarizing your team’s performance at the competition is due on the last class day. In addition, at the end of the semester, each student will assess the contributions of teammates. **Attendance at the design competition is mandatory. If you have a conflict, please let your instructor know as soon as possible.**
### Due Dates:

<table>
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<tr>
<th>Event</th>
<th>Date</th>
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<tbody>
<tr>
<td>Balsa frame test deadline</td>
<td>21 Sept.</td>
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<tr>
<td>Design report (draft) due</td>
<td>12 Oct.</td>
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<tr>
<td><strong>Design report (draft) returned</strong></td>
<td>29 Oct.</td>
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<tr>
<td>Advising assignment due</td>
<td>29 Oct.</td>
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<tr>
<td>Design report (revised) due</td>
<td>5 Nov.</td>
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<tr>
<td>Ethics assignment due</td>
<td>12 Nov.</td>
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<tr>
<td>Device beta test</td>
<td>21, 22, 23 Nov.</td>
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<tr>
<td>Design competition</td>
<td>1 Dec.</td>
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<tr>
<td>Oral reports</td>
<td>3, 5, 7 Dec.</td>
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<tr>
<td>Return LEGO and construction kits</td>
<td>7 Dec.</td>
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<tr>
<td>Final memo due</td>
<td>7 Dec.</td>
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**Quiz Policy:** There are no make-up quizzes and no credit for missed quizzes. There is no final exam.

**UP Bulletin Description:** EGR 110 Introduction to Engineering — 2 cr. hrs. An exploration of the engineering profession, including careers, aspects of engineering education, and case studies. Introduction of ethical and social issues related to technology. Development of engineering design methodology utilizing a semester-long project. Study of oral, written, and graphical communication of technical material in conjunction with the project. Fee: $20.

**Accommodation for Disability:** If you have a disability and require an accommodation to fully participate in this class, contact the Office for Students with Disabilities (OSWD), located in the University Health Center (503-943-7134), as soon as possible.

**Code of Academic Integrity:** (from Student Handbook) Academic integrity is openness and honesty in all scholarly endeavors. The University of Portland is a scholarly community dedicated to the discovery, investigation, and dissemination of truth, and to the development of the whole person. Membership in this community is a privilege, requiring each person to practice academic integrity at its highest level, while expecting and promoting the same in others. Breaches of academic integrity will not be tolerated and will be addressed by the community with all due gravity.

**Assessment Disclosure Statement:** (from Student Handbook) Student work products for this course may be used by the University for educational quality assurance purposes.

**Course Schedule:** See accompanying schedule for each section.