Syllabus

EGR 110 - Introduction to Engineering–Fall Semester, 2014

UNIVERSITY OF PORTLAND - SHILEY SCHOOL OF ENGINEERING

Faculty:

Section	Time	Instructor	Phone	Email	Office*
A	9:15 – 10:10 MWF	James Male	x7176	male@up.edu	213
B	9:15 – 10:10 MWF	Aziz Inan	x7429	ainan@up.edu	215
C	11:25 – 12:20 MWF	Nikolene Schulz	x7623	schulz@up.edu	244
D	11:25 – 12:20 MWF	Joseph Hoffbeck	x7428	hoffbeck@up.edu	212
E	1:35 – 2:30 MWF	Wayne Lu	x7140	lu@up.edu	234
F	2:40 – 3:35 MWF	Deborah Munro	x7152	munro@up.edu	239
G	1:35 – 2:30 MWF	Tammy VanDeGrift	x7256	vandegri@up.edu	230

*All offices are in Shiley Hall

Office Hours: Arranged by individual instructor.

Lab Coordinator: Paige Hoffert, hoffertm@up.edu, Shiley 117. Hours: To be arranged and posted outside Shiley 117

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

Project Assistants: Upper-class students work in Shiley 110 to dispense materials and tools. They are also available as mentors, who can help advise you on your project.

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

Text: The Pocket Wadsworth Handbook, sixth edition, Kirszner and Mandell, Cengage Learning, 2014.

Reading: Shiley School of Engineering *Writing for Engineers* and *Student 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 innovative engineering design.
- Know how to organize, schedule and complete an engineering design project.
- Have an understanding of engineering and computer science degree requirements and ability to monitor one's own degree progress.

- 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.

Cell Phone Use: Cell phone use is prohibited during class and lab times.

Lab Sessions: Lab sessions will be scheduled during the regular class time. The labs are intended to assist in completing the course project. It is expected that you meet with your team to work on the project during team time as well as outside scheduled class times. Several class sessions are available for team meetings.

Lab/Shop Access/Safety Policy: No one is allowed to work in any shop or lab without appropriate training from the Lab Supervisor and without instructor permission. No food or beverages are allowed in the computer classrooms, shop, or labs. This includes water bottles; put them in your bag or leave them in your locker.

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 labs. Some evening and weekend 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 with copies to teammates. The message should include the team's accomplishments during the week, plans for the coming week, and any 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 requests.

Requirements and Grading:	Occasional quizzes/assignments	5%
	Lab performance	5%
	Meeting with Lab Coordinator	5%
	Advising Assignments	5%
	Ethics quiz/assignment	5%
	Weekly team updates	5%
	Attendance	5%
	Attendance at Learning Resource Center	5%
	Project (See project write-up)	
	Project proposal	10%
	Design report (draft)	10%
	Design report (final)	10%
	Oral presentation	10%

EGR 001 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. At the end of the semester, each team will demonstrate or display, in a way that is relevant to the project undertaken, the result of the effort. Each team will prepare a design report, as described in the project write-up, with contributions from all team members. During the last week of classes, each team will give an oral presentation about its device. In addition, at the end of the semester, each student will assess the contributions of their teammates and of themselves.

Due Dates:	
Meet with Technician/Lab Coordinator	19 Sept.
Balsa frame test deadline	22 Sept
Project proposal	22 Sept.
Attendance at CAD session (one team member)	26 Sept.
Advising assignment no.1	29 Sept.
Ethics assignment	3 Oct.
Design Report (draft) due	10 Oct.
Advising assignment no. 2	22 Oct.
Design Report (draft) returned	27 Oct.
Design Report (final) due	3 Nov.
Advising meeting with instructor	7 Nov.
Beta test	17, 19 Nov.
Open House/Demonstrations	22 Nov.
Major intent form	1 Dec.
Oral reports	1, 3, 5 Dec.
Return LEGO, Arduino and constr. kits	5 Dec.

Test Policy: There are no make-up quizzes and no credit for missed quizzes. There is no final exam.

Assistance: Additional assistance is available at the Learning Resource Center (Franz 120, 943-8002) for help with writing, math, public speaking, and group interactions.

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: $40.

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 UP 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 UP 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.