



Department of Mechanical Engineering
ME EN 4010 - Engineering Design II
Syllabus

Instructor: Prof. Eberhard Bamberg, 2124 MEB, bamberg@mech.utah.edu, (801) 585-0722

Office hours: Monday, Wednesday, 2:00 - 3:30 pm and by appointment

Lectures: Monday, Wednesday, 10:45 - 11:35 am, EMCB 104
Friday, 10:45 - 12:40 am, EMCB 105

Course website: <http://www.mech.utah.edu/~me4000>

Prerequisites: ME EN 3910, 4000, and Upper Division ME EN Status

Teaching Assistant: Xin Liu. Office hours: Friday, 12:00 - 3:00 pm, 2410 MEB

Course Summary

ME EN 4010 is the third and final course in the Senior Design Sequence - ME EN 3910, 4000, 4010. The course is largely focused on the senior design projects and their presentation at Design Day.

Course Objectives

Students will be able to focus on their design projects and periodically, as a team, report on the status of the project. On Design Day, students will present the projects to the public and give final presentations. At the completion of this course, students will have learned to work as a team on a complex design problem.

Late Submission Policy

Assignments submitted after the due date but before solutions have been posted will receive a 20% deduction. After the solutions have been posted on the course website, assignments can no longer be accepted.

Deliverables

There will be four design reviews (see Table 2 for the schedule) and one final presentation (on design day). The design reviews are limited to 20 minutes and need to provide a brief update on the status of the project (budget and schedule) but otherwise focus on detailed, technical aspects of the project. All team members are expected to be present and answer questions in a professional and competent manner. In case of problems in the design, team members are expected to provide approaches to solve problems in their designs.

The final presentation is limited to 20 minutes as well and needs to provide an overview of the project and highlight the achievements.

Table 1: Grading

Design Reviews	Final Presentation	Design Project
30%	10%	60%

Table 2: Presentation Schedule Spring 2007

Week	Monday	Wednesday	Friday
1	January 8, 2007 Course Introduction	January 10, 2007	January 12, 2007
2	January 15, 2007 <i>Martin Luther King Day - no class</i>	January 17, 2007 Ueberbord, Downhill Wheelchair	January 19, 2007 Formula SAE, Mini-Baja, Wind Turbine
3	January 22, 2007 Snowboard Release Binding, Electric Skateboard	January 24, 2007 Titan 40-w, Electronic Valve Control	January 26, 2007 Moon Buggy, Solar Car, Lower Limb Modeling
4	January 29, 2007 Tornado Machine, Unmanned Aerial Vehicle	January 31, 2007 SMA Array Controls, Robotic Hand Mechanism	February 2, 2007
5	February 5, 2007	February 7, 2007 Ueberbord, Downhill Wheelchair	February 9, 2007 Formula SAE, Mini-Baja, Wind Turbine
6	February 12, 2007 Snowboard Release Binding, Electric Skateboard	February 14, 2007 Titan 40-w, Electronic Valve Control	February 16, 2007 Moon Buggy, Solar Car, Lower Limb Modeling
7	February 19, 2007 <i>President's Day - no classes</i>	February 21, 2007 Tornado Machine, Unmanned Aerial Vehicle	February 23, 2007 SMA Array Controls, Robotic Hand Mechanism
8	February 26, 2007	February 28, 2007 Ueberbord, Downhill Wheelchair	March 2, 2007 Formula SAE, Mini-Baja, Wind Turbine
9	March 5, 2007 Snowboard Release Binding, Electric Skateboard	March 7, 2007 Titan 40-w, Electronic Valve Control	March 9, 2007 Moon Buggy, Solar Car, Lower Limb Modeling
10	March 12, 2007 Tornado Machine, Unmanned Aerial Vehicle	March 14, 2007 SMA Array Controls, Robotic Hand Mechanism	March 16, 2007
11	March 19, 2007 <i>Spring break - no class</i>	March 21, 2007 <i>Spring break - no class</i>	March 23, 2007 <i>Spring break - no class</i>
12	March 26, 2007	March 28, 2007 Ueberbord, Downhill Wheelchair	March 30, 2007 Formula SAE, Mini-Baja, Wind Turbine
13	April 2, 2007 Snowboard Release Binding, Electric Skateboard	April 4, 2007 Titan 40-w, Electronic Valve Control	April 6, 2007 Moon Buggy, Solar Car, Lower Limb Modeling
14	April 9, 2007 Tornado Machine, Unmanned Aerial Vehicle	April 11, 2007 SMA Array Controls, Robotic Hand Mechanism	April 13, 2007
15	April 16, 2007	April 18, 2007	April 20, 2007
16	April 24, 2007 DESIGN DAY		