

HPPV Design Project
Engr 290
Winter Quarter 2012

<u>Instructor</u>	Dusty Wilson
<u>Office</u>	15-210
<u>Phone</u>	206-592-3338
<u>Fax</u>	206-870-4803
<u>Office Hours</u>	9 – 9:50am M - F. The Thursday hour is in the MRC. Also by appt.
<u>home page</u>	http://flightline.highline.edu/dwilson/
<u>WebAssign</u>	https://www.webassign.net/login.html
<u>e-mail</u>	dwilson@highline.edu
<u>facebook</u>	facebook.com/dustywwilson

Course Location and Time: Tuesday and Thursday from 3:00 – 5:00 PM in 16-105

Course Description:

The overall goal for this class is to give engineering students a chance to participate in a real engineering project so that they can be excited about engineering early in their academic studies. Students will construct a human powered vehicle out of 90% paper products (by weight). The remaining 10% is limited only by the imagination of the designers. There are three parts to the overall competition: Vehicle Performance, Innovative Design and Presentation Skills. This project helps develop student excellence in team work, communication and creative problem solving.

Learning Objectives:

- Complete a “Real World” Engineering Project
- Implement a mechanical design process.
- Apply engineering concepts to a design problem.
- Work as a team to complete a project on time.
- Learn to use Gant charts for project planning.
- Develop progress report writing skills.
- Develop creative problem solving skills.
- Develop oral presentation skills.
- Participate in a peer evaluation process.

Class Format:

This class will be taught using several different instructors as noted on the attached schedule. There will be significant class time allowed to work on the project. Attendance is important in that instructions will be given at the beginning of each class that will be beneficial to completing the project. You will be responsible for managing your own time in this class. To encourage good design processes and proper time management, the design process has been broken in pieces with “gates” that you must complete before progressing to the next part of the process. Dates for the gate presentations are outlined on the schedule. You are encouraged to set a specific weekly time to meet with your group outside of class.

Groups:

Students may choose their own groups with the limitation that a group may not have more than four engineering students.

Evaluation:

Your grade for this course will be based on a variety of activities. Attendance -200. Gate Presentations (1, 2, and 3A) 3*100 = 300. Peer Evaluations 100.

Grading: GPA's will be according to:

95-100%	4.0	%%%	GPA	%%%	GPA	%%%	GPA	%%%	GPA
93-4%	3.9	81%	3.1	73%	2.3	65%	1.5	57%	0.7
91-2%	3.8	80%	3.0	72%	2.2	64%	1.4	56%	0.6
89-90%	3.7	79%	2.9	71%	2.1	63%	1.3	55%	0.5
87-8%	3.6	78%	2.8	70%	2.0	62%	1.2	54%	0.4
85-6%	3.5	77%	2.7	69%	1.9	61%	1.1	53%	0.3
84%	3.4	76%	2.6	68%	1.8	60%	1.0	52%	0.2
83%	3.3	75%	2.5	67%	1.7	59%	0.9	51%	0.1
82%	3.2	74%	2.4	66%	1.6	58%	0.8	0-50%	0.0

Due Dates:

Assignments turned in after the due date will receive 50% credit.

Email:

An e-mail account is required. You may use a commercial or Highline account. If you do not already have an account, please talk to the instructor if you need help obtaining an email account. Please visit the website for this course and sign up on the email posting list to receive information and updates for this course.

Special Concerns:

If you have any special concerns about this class, please talk to me personally in my office. The more I know about you individually, the more I can help you be successful in this course. If you need course adaptations or accommodations because of dis-Ability; if you have emergency medical information to share with me; or if you need special arrangements in case the building must be evacuated, please provide me with the Letter of Accommodation you have received from the Office of Access Services. Access Services is located in Building 99 in the Student Development Center.

Emergency Procedures:

In the event of an emergency, follow your instructor's directions. If you are told to evacuate the building, take your valuables because you may not be allowed to re-enter. Do not leave campus until your instructor or another campus official tells you to do so. If you may need assistance evacuating, notify your instructor today. To prepare yourself for an emergency, review the evacuation map on the last page of the emergency placard in your classroom and subscribe to HCC Alert, a text message service for emergencies (<https://bob.highline.edu/hccalerts/>).

Important Dates:

The last day to drop without incurring a "W" and the last day to officially withdraw with a "W" are listed in the quarterly.