Engineer Your World Syllabus
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http://www.everettsd.org/Domain/2118
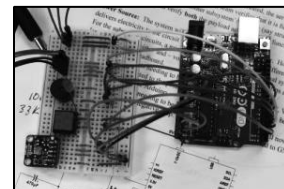
Engineering is a process, its progressive…
FAIL FAST, FAIL OFTEN

Engineer Your World is a one-year high school project-based engineering curriculum. Through socially relevant explorations and hands-on design challenges you will learn engineering design skills and explore engineering fields and professions.

Academic Calendar

Semester 1   ~Weeks
Unit 1: Intro, Cardboard Car (Universal Design, Documentation)	2	Sept
Unit 2: Aerodynamic Cars (Engineering Design Process)	2	Sept-Oct
Unit 3: Pinhole Camera (Meeting Customer Needs)	8	Oct-Nov
Unit 4: Earthquake Resistant Buildings (Designing with Data)	8	Dec-Jan

Semester 2
Unit 5: Electronic Music (Intro to programming)	2	Feb
Unit 6: Light Sculptures (Electrical Engineering)	6	Feb-March
Unit 7: Aerial Imaging (Systems Engineering)	10	April-June

Required Materials

Your school-supplied laptop. The majority of your documentation will be done online.

Safety

Student safety overrides all other concerns. You will be using electrical components, heating elements, cutting tools, and possibly power tools to complete design challenges. There will be no tolerance for senseless play or miss-use of tools or materials.
Be safe, not sorry.

Attendance

This is a hands-on, team-project based class. You need to be here. You can't "make up" most of what you miss. If you know you'll be absent, plan ahead with your teammates.

Late Work: For work that can be made up, you have the same number of days to make work up as the number of days you were absent. Late work without an excused absence can receive a maximum grade of "C".

I. Individual Assessments (~50% of your grade)

You will be graded individually on journal entries, homework and tests.

II. Team Design Challenges (~50% of your grade)

→ **The vast majority of work in this class is team assignments.** (New teams every project.)

Everyone on the team will (usually*) get the same score for:

    (a) quality of final product

    (b) team documentation/written reports

    (c) team presentation.

Real engineering teams are assessed on their final project not on who put in more effort so **be a reliable, positive, productive member of your team**.

* Exceptions are made when there are great gaps between those who "do" and those who "don't".

Advice

Regularly check the class webpage calendar. http://www.everettsd.org/Domain/2118

Stay busy; there is always something to do.

Engineers rely on their notebooks! Keep yours organized.

On teaming: Manage your time well and learn to make quick decisions as a team even if you don't agree. Get over it, continue to work together. Regroup after failure and promote encouragement and ideas not blame and problems.

Accept that things won't always work right the first time around. "Failure" lets you know what to fix! If you accept lack of perfection you will learn a whole lot more. *FAIL FAST, FAIL OFTEN.* Have fun, get nerdy, and don't take yourself too seriously.

Open Door Policy to Work on Projects:
You are welcome to work in room 501 after school on your projects if I am here.