Syllabus: **How to Think Like an Engineer / HSSP E2280**

Teaching Staff:

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Room: 1-150

Engineers design and build the world around us. From buildings, to airplanes, to the computer on your desk, most of the "stuff" in the world was designed by or reviewed by an engineer at some point in its life cycle.

This class will attempt to teach you how to think like an engineer. We will cover many basic engineering concepts and show you why the material you are learning in your science and math classes is important (though, we won't ask you to do much — if any — math!). Students will work in teams to design and build their own engineering projects, and we'll test them and compare the results. The first half of the class will have several small-scale projects, while the second half will focus largely on a much more detailed, long-term project.

Schedule: (Subject to Change)

Class Date	**Topic**	**Project**	**Goal/Activity**
Mar 14th	Intro to Engineering	Egg Drop	An interactive introduction to engineering. Don't Break the Egg!
Mar 21st	Design Process; Frame structures	Tower	Height competition
Apr 4th	Bridge Design; Loads	Pasta Bridge	Design and Start Building
Apr 11th	Bridge Construction	Pasta Bridge	Build to completion. Prepare to Test
Apr 18th	Bridge Testing Intro to Siege Warfare and Final Project	Pasta Bridge Castle vs. Catapult	Bridge testing. Create a Conceptual Level Design
Apr 25th	Final Project Building	Castle vs. Catapult	Finish design and begin building
May 2nd	Final Project Building	Castle vs. Catapult	Build
May 9th	Final Project Competition Wrap-up	Castle vs. Catapult	Competition Next Steps to becoming an engineer