HON PHYSICS

SYLLABUS

February 3 - 7, 2020

**MON:** **LAB:** Centripetal Force

**HW:**  Final Prep for ***King of the Hill Competition***

**Web post due by Saturday, 8:00 A.M.**

**TUE:** King of the Hill Competition

**HW:** Circular Motion Worksheet I - UPDATED

**WED:** Discuss Vertical Circular Motion

Practice circular motion problems

**HW:**

**THU:** Discuss pg. 256 - 259

“Rotation and Inertia”

**HW:** Circular Motion Worksheet II - UPDATED

Rotational Inertial & Momentum worksheet

Science In the News due Friday - *STEM*

**FRI:** Discuss chapter 7, pg. 232 - 239

"Newton's Universal Law of Gravitation"

**HW:** Pg. 264 - 268: 12 - 19, 22, 23, 39, 40, 52

**Web post due by Saturday, 8:00 A.M.**

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***King of the Hill Project*** *COMPETITION Tuesday. February 4*

***TEST*** *on chapter 7 Tuesday February 11*

An unguarded strength is a double weakness. *Oswald Chambers*

***King of the Hill Project Overview***

**Step 4:** Construct King of the Hill Project car - *Due Monday, February 3*

* This car must follow exactly the project guidelines. *Pay particular attention to size guidelines!*
* Give yourself PLENTY of time to construct your car and to fix small and large things that will break, spin out, snap, flip, or just plain not work.
* You must demonstrate that your car can run at least 10 cm; however, you may take your car home to make final adjustments before the next day competition.

**Step 5:** King of the Hill Competition – *Due Tuesday, February 4*

* Your car must be ready to run 7 minutes after the bell for class.
* Also bring to class a final schematic of your car with the parts labeled, including what the parts are made from. More than one view might be necessary to show the “engine” of the car and how it works Also include a description of how your car runs and the physics principles behind its design.
* Bring plenty of spare parts!
* In addition to the King of the Hill competition, there will be a race for speed and a race for distance.