Class Title: Kerbal Space Program

Description: Do you like spaceships? Do you want to explore uncharted worlds at the far reaches of the solar system and learn fundamentals of aerospace physics? Do you like spectacular explosions? Do you like being able to use Mods in games? If you said yes to these, then this is the class for you. Kerbal Space Program is a physics-based flight simulator game for the PC, that allows you to build your own spaceships and spaceplanes to launch a crew into space. The class will start with the basics of spaceflight and getting a ship into space. Then we will move onto actually getting a ship to a stable orbit. In later classes we will be building a space station, landing on the Mun (yes thats what it's called in KSP), and then other planets in the fictional Kerbal Solar System. A huge part of the fun of Kerbal Space Program is learning through trial and error, resulting in endlessly entertaining crashes and explosions. By the end of the course students will have a basic understanding of flight and orbital mechanics and the ability to continue learning and playing with the game at home.

Course Schedule
Three 2-hour sessions with possibility of a 4th (at no further cost)

Course Cost: $80 plus cost of Kerbal Space Program ($27)

About the Game:
https://kerbalspaceprogram.com/about.php

Software required: Students will need to open an account with Steam and download the game for $27. Steam is useful for many reasons including playing other educational games, learning programming skills and storing programming projects.

Steam download location:
http://store.steampowered.com/about/
Kerbal Space Program link on Steam:
http://store.steampowered.com/app/220200/

Main site for the game:
https://kerbalspaceprogram.com/index.php

Instructions for downloading the game:
Install Steam
1. Go to Steam website. http://store.steampowered.com/about/
2. Click "Install Steam Now"
3. Follow installation instructions for installing Steam

Install Kerbal Space Program
1. Open Steam
2. Using the searchbar, search for Kerbal Space Program
3. Click "Add to Cart" and purchase the game
4. Go to your Steam Library and click "Install Game"

Computer Requirements:
PC:
<u>Minimum specs:</u>
OS:Windows Vista
Processor:Core 2 Duo
Memory:3 GB RAM
Graphics:SM3 512MB VRAM
Hard Drive:1 GB HD space

<u>Recommended specs:</u>
OS:Windows 7
Processor:Core i3
Memory:4 GB RAM
Graphics:SM4 1GB VRAM
Hard Drive:2 GB HD space

Mac:
<u>Minimum specs:</u>
OS:Snow Leopard
Processor:Dual Core Intel
Memory:3 GB RAM
Graphics:SM3 512MB VRAM
Hard Drive:1 GB HD space
<u>Recommended specs:</u>
OS:Mountain Lion
Processor:Core i3
Memory:4 GB RAM
Graphics:SM4 1GB VRAM
Hard Drive:2 GB HD space