Course Title Physics Honors	
Grade Levels 11-12	**Course Length**: Year (semester based)
Prerequisites For the first semester: enrollment or completion of Algebra 1 and for the second semester: Must have previously taken Physics Honors 1st semester in the same year.	

Course Description

Semester 1 – Movement and Forces: develop a qualitative and quantitative understanding of how to describe and predict the motion of everything from human runners to thrown objects and even celestial objects. Then discovering what causes changes in these motions, and what happens when these objects collide. While developing your scientific skills including observation, modeling including the use of mathematical equations and simulations, and the development of scientific experimentation.

Semester 2 – Conservation and Waves: develop a comprehensive qualitative and quantitative understanding of the principles of energy and momentum, specifically how their conservation can be used to describe the interactions between object and their position in our world. Then using this to observe cyclic changes in object such as springs, sound and light. Concurrently students will continue to develop experimental skills including developing techniques to maximize accuracy in experimentation, evaluating scientific arguments, design solutions and assess information from various sources to determine their validity.