|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | | *Fairfield Ludlowe High School - Fairfield Warde High School*  **ADVANCED PLACEMENT PHYSICS 1** | | |
| Caroline Smith | | F-23 & T-18 |
| Full Year | | 1 & 9 |
| csmith7@fairfieldschools.org | | |
| COURSE DESCRIPTION | | | | |
| AP Physics 1: Algebra-based is the equivalent of the first semester of introductory, algebra-based college course. Since  this course is a year- long course, teachers have time to foster deeper conceptual understanding through student-centered,  inquiry-based instruction and students have time to master foundational physics principles. AP Physics 1 explores topics  such as Newtonian mechanics (including rotational motion); work, energy, and power; mechanical waves and sound; and  introductory, simple circuits. Through inquiry based learning, students will develop scientific critical thinking and  reasoning skills. This course requires that 25 percent of the instructional time will be spent in hands-on laboratory work,  with an emphasis on inquiry based investigations that provide students with opportunities to apply the science practices.  Students in AP Physics 1 are learners with demonstrated mathematical and problem-solving ability. Students are expected  to take the AP Physics 1 examination in May | | | | |
| COURSE OBJECTIVES | | | | |
| Students will understand that:   * scientific numeracy includes the ability to use mathematical operations and procedures to calculate, analyze and present scientific data and ideas. * waves have characteristic properties that do not depend on the type of wave. * Newton’s laws predict the motion of most objects. * the laws of conservation of energy and momentum provide a way to predict and describe the movement of objects. * energy cannot be created or destroyed although, in many processes, energy is transferred to the environment as heat. | | | | |
| UNITS OF STUDY | | | | |
| * Kinematics * Vectors * 2D motion * Dynamics * Circular motion & Gravitation * Conservation of Momentum * Work & Energy * Electrostatics * Introduction to DC Circuits * Torque/Angular Momentum * Mechanical Waves/Sound | | | | |
| COURSE POLICIES AND REQUIREMENTS | | | | |
| GRADING | | | | |
|  | Summative Assessments: | | 100%  Tests - 100pts each Quizzes - 25 to 50 pts each Lab reports - 50 pts each Projects - up to 50pts  MOPS - 10pts each | |
|  | Formative Assessments: | | 0%  Socrative Classwork | |
|  | Behavioral Characteristics: | | 0% | |
|  |  | | | |
| MATERIALS | | | | |
|  | Notebook Calculator (trig capabilities) Lab notebook | | | |
| EXPECTATIONS OF STUDENTS | | | | |
|  | Students are expected to always try to the best of their abilities. They are expected to have their notebook and calculator every day. It is not necessary to bring their textbooks to class. They are expected to uphold Warde's high academic integrity standards as well as arrive in class ready to learn and be respectful to all other students and instructors. | | | |
| EXTRA HELP | | | | |
|  | I am availible for extra help before or after school, or during frees, with prior notice. I am always available for extra help at csmith7@fairfieldschools.org | | | |
|  | | | | |