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|  | | *Fairfield Ludlowe High School - Fairfield Warde High School*  **PHYSICS 40** | | |
| Caroline Smith | | T-18 & T-22 |
| Full Year | | 4 & 7 |
| csmith7@fairfieldschools.org | | |
| COURSE DESCRIPTION | | | | |
| This course will provide students with a fundamental knowledge of physics. Some of the areas studied include: motion and forces, conservation of energy and momentum, waves, heat and thermodynamics, and electricity and magnetism. The emphasis is on basic concepts, analysis of laboratory data and problem solving. Students in Physics 40 will develop problem-solving abilities. Students will investigate these topics through a variety of classroom activities which include: pre-written and open-ended laboratory experiments; small group discussions; lectures and note taking; viewing videos; learning and applying problem-solving techniques; and relating physics principles to daily experience. Students will understand the role of physics in explaining natural phenomena and in seeking solutions to scientific and technological problems that citizens of the 21st century will face. | | | | |
| COURSE OBJECTIVES | | | | |
| Students will understand that:   * 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. * electric and magnetic phenomena are related and have many practical applications. | | | | |
| UNITS OF STUDY | | | | |
| * Waves and Optics – Reflection * Waves and Optics – Refraction * Waves and Optics – Interference * Mechanics - Motion and Forces – Kinematics * Mechanics - Motion and Forces - Dynamics, Circular Motion and Gravitation * Mechanics - Motion and Forces - Conservation Laws * Electricity and Magnetism - Static Electricity * Electricity and Magnetism - Current Electricity * Electricity and Magnetism – Magnetism | | | | |
| 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% | |
|  | Behavioral Characteristics: | | 0% | |
|  | Insert Additional Grading Information Here | | | |
| MATERIALS | | | | |
|  | Notebook Calculator (trig capabilities) Writing Implements | | | |
| 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 | | | |
| Insert Additional Information Here | | | | |