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|  | | *Fairfield Ludlowe High School - Fairfield Warde High School*  **ADVANCED PLACEMENT physics 2** | | |
| Insert Teacher Name | | Insert Room Number |
| Full Year | | Insert Period |
| Insert Email Address | | |
| COURSE DESCRIPTION | | | | |
| AP Physics 2: Algebra-based is the equivalent of the second 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 2 explores topics such as fluid statics and dynamics; thermodynamics with kinetic theory; PV diagrams and probability; electrostatics; electrical circuits with capacitors; magnetic fields; electromagnetism; physical and geometric optics; and quantum, atomic, and nuclear physics. 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 2 are learners with exceptional mathematical and problem-solving ability. Students are expected to take the AP Physics 2 examination in May. | | | | |
| COURSE OBJECTIVES | | | | |
| Students will understand that:   * 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 * Waves have characteristic properties that do not depend on the type of wave * Electric and magnetic phenomena are related and have many practical applications | | | | |
| UNITS OF STUDY | | | | |
| * fluid statics and dynamics * thermodynamics with kinetic theory * PV diagrams and probability * electrostatics * electrical circuits with capacitors * magnetic fields * electromagnetism * physical and geometric optics * quantum, atomic, and nuclear physics | | | | |
| COURSE POLICIES AND REQUIREMENTS | | | | |
| GRADING | | | | |
|  | Summative Assessments: | | 100%  Insert Categories/Weighting (ie. Papers – 30%) | |
|  | Formative Assessments: | | 0% | |
|  | Behavioral Characteristics: | | 0% | |
|  | Insert Additional Grading Information Here | | | |
| MATERIALS | | | | |
|  | Insert Course Materials Here (ie. Textbook, Binder, Calculator, Highlighters) | | | |
| EXPECTATIONS OF STUDENTS | | | | |
|  | Insert Course Expectations Here | | | |
| EXTRA HELP | | | | |
|  | Insert Course Expectations Here | | | |
| Insert Additional Information Here | | | | |