2022-2023 Syllabus – AP Physics

Mr. Jonathan Lowe

Waltrip Mission Statement

Waltrip High School fosters a safe and challenging learning environment, preparing students for post-secondary education and a competitive global workforce through rigorous core academic instruction, comprehensive social-emotional supports, an array of quality fine arts and athletics programs, and comprehensive career and technology education.

Classroom Objectives:

• Maximize learning opportunities for all students via diverse and data-driven instruction
• Foster a community of respect, integrity, and inclusion both in and out of the classroom
• Share personal experiences and knowledge to help students succeed in all aspects of life

Information from College Board regarding the AP Physics 1 Course:

AP Physics 1 is an algebra-based, introductory college-level physics course. Students cultivate their understanding of physics through inquiry-based investigations as they explore these topics: kinematics, dynamics, circular motion and gravitation, energy, momentum, simple harmonic motion, and torque and rotational motion.

The AP Physics 1 Exam assesses student application of the science practices and understanding of the learning objectives outlined in the course framework. The exam is 3 hours long and includes 50 multiple-choice questions and 5 free-response questions. The 5 free-response questions may appear in any order on the AP Exam. A four-function, scientific, or graphing calculator is allowed on both sections of the exam.

The exam is currently scheduled for the first week of May.

AP Physics 1 Unit Schedule:

<table>
<thead>
<tr>
<th>Unit</th>
<th>Date Range</th>
<th>Labs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – Kinematics</td>
<td>8/22 – 9/21</td>
<td>So You Think You are Fast; AP Investigation 1 (Balls on Track); Hit the Teacher</td>
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<tr>
<td>2 – Dynamics</td>
<td>9/22 – 10/21</td>
<td>AP Investigation 2 (Atwoods); Mu of Your Shoe</td>
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<tr>
<td>3 – Circular Motion</td>
<td>10/24 – 11/4</td>
<td>AP Investigation 3 (The Flying Pig)</td>
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<tr>
<td>4 – Energy</td>
<td>11/7 – 12/14</td>
<td>AP Investigation 4 (Cart Energy); Spring Constant Investigation</td>
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<tr>
<td>5 – Momentum</td>
<td>12/16 – 2/3</td>
<td>Egg Drop, AP Investigation 5 (Spring-Loaded Cart)</td>
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<tr>
<td>6 – Simple Harmonic Motion</td>
<td>2/6 – 2/17</td>
<td>AP Investigation 6 (Pendulum)</td>
</tr>
<tr>
<td>7 – Rotational Motion</td>
<td>2/22 – 3/29</td>
<td>Meter-stick Torque Lab; AP Investigation 7 (Rolling Objects)</td>
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</table>
Teacher Contact Information:

Jonathan.lowe@houstonisd.org
(409) 241-6120
"Remind" App Code: @lowephys22

Non-Instructional Time Summary:

<table>
<thead>
<tr>
<th>Description</th>
<th>Days / Times</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office Hours</td>
<td>Tu, Th: 4:15 – 5:15</td>
<td>Tutorials (1st semester only; 2nd semester will change)</td>
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<tr>
<td>Quiet Time</td>
<td>4:00pm – 8:20am, Weekends</td>
<td>Mr. Lowe’s time away from work (though I often respond to school-related messages)</td>
</tr>
</tbody>
</table>

Classwork and Grading Policy

- Assignments for AP Physics will include reading, labs, and other homework
  - Assignments will be listed in Canvas but may utilize other digital resources
  - Homework assignments in AP Classroom must be submitted digitally, but each submission must be accompanied with work shown on paper (turn in BOTH)
  - This is a college-level course; therefore college-level rigor and difficulty are required
  - Students should expect significant time spent on the class OUTSIDE of class hours
- Each assignment will include a due date to ensure content is learned at the appropriate time
  - Assignments completed on or before the due date will have a maximum score of 100%
  - Assignments completed after the due date will have a maximum score of 80%
    - No assignments will be accepted more than three days after the original due date
  - For extenuating circumstances such as excused absences, alternative due dates may be arranged at the discretion of the teacher
- Grading
  - Students should complete all assigned reading and questions; however, every question may or may not be graded
  - The teacher will not announce ahead of time which questions are graded
  - Re-takes / Re-dos
    - Consistent with school policy, students that fail an assessment or assignment will have the opportunity to re-take the assessment or re-do the assignment
    - Re-takes / re-dos will have a maximum 80% score
    - Re-takes / re-dos must be completed within three days of the original due date or the end of the 6-week grading period (whichever comes first)
  - Grade weight by assessment type:
    - Exams & Quizzes – 30%
    - Labs – 30%
    - Classwork and homework – 30%
    - Participation – 10%
  - Please note that POWERSCHOOL is the official gradebook, not Canvas
Tardy / Absence Policy:

- The purpose of the tardy policy is to maximize instructional time with every student
- Students are expected to arrive in the classroom and be seated before the tardy bell rings
  - Students arriving less than 15 minutes late on Mondays or less than 30 minutes late Tuesday - Friday will be considered tardy
  - Students arriving greater than 15 minutes late on Mondays or greater than 30 minutes late Tuesday - Friday will be considered absent
  - A signed pass from a teacher or administrator will be accepted, though these occurrences should be minimized

Restroom Policy:

- Students are expected to use restroom facilities during passing periods or lunch and should plan accordingly
- Students should use the restroom during class time sparingly:
  - No students may use the restroom during the first 15 minutes or last 15 minutes of class time
  - Only one student (regardless of gender) may leave the classroom at a time
  - Students must request a hall pass and return within 5 minutes of leaving

Electronics Policy:

- Students will put away phones and earbuds in their bags prior to entering the classroom
- Failure to follow teacher directions regarding electronics will result in temporary confiscation of devices consistent with school policy
- Special notes on laptops:
  - Students will need laptops every day for lectures, assignments, labs, and assessments
  - Laptops should only be used for appropriate activities as directed by the teacher

Other Classroom Policies

- Food and drinks
  - Students may drink water in the classroom
  - No other food or drink may be consumed in the classroom
- Entering the classroom
  - Only the door in the front of the classroom will be unlocked for entry
  - All materials aside from the student laptops, notebooks, and writing utensils should be placed on the side counters or the floor near students’ seats
  - Students should sit according to the seating chart and begin work on the "Do Now" posted activity
- "Remind" App
  - Students and parents are highly encouraged to download the "Remind" app
  - This app is used for seamless communication between all parties
  - To join, text the following code to "81010": @lowephys22