Honors Physics **412-896-2300 Ext 7900**
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Text
Physics; Principles with Applications, Douglas C. Giancoli

Course Overview

Physics, as you will learn, is the science that attempts to order and understand the fundamental structure and dynamics of the universe. Since it encompasses such a vast area of study, from the universe as a whole to the tiniest subatomic particle, we will focus only on the most basic areas of physics, namely the principles and laws of motion and electricity. We also will allow for open discussion of other topics in physics as need and interest warrant.
Topics covered are as follows:

- Measurement and error
- Motion in one dimension
- Analyzing motion graphs
- Vector operations
- Motion in two dimensions – projectiles
- Newton's laws of motion – forces
- Circular motion and the law of gravity
- Work and mechanical energy
- Linear momentum
- Electric charge and electric fields
- Electric potential and capacitance
- Electric current, resistance, and power
- DC circuits
- Additional topics?

Other Materials

You will need one large notebook or three-ring binder (1.5-inch or 2-inch) for writing lecture notes, working practice problems, and completing other assignments. A binder is preferable for keeping handouts organized and for removing loose-leaf pages for grading. If you use a bound notebook you will also need a pocket folder or other means for keeping handouts.

You should always keep at least two good pencils with you at all times for completing graphs, tests, and quizzes. Mechanical pencils are acceptable.

You will need a scientific calculator that has trigonometric, root, exponential, and reciprocal functions. A graphing calculator such as the TI-84 is not required, but if you have one, I encourage you to use it. You will not be permitted to use calculator apps on your iPad or cell phone during tests and quizzes. **It is imperative that you bring your calculator to class EVERY DAY!**

You may also want to procure a basic centimeter ruler and a protractor, as we will be doing some line drawing, length measuring, and a bit of angle measuring.

Classroom Expectations/Requirements

In-class attentiveness and participation are crucial to success in Physics. Development of theory and derivation of mathematical expressions can be rather lengthy and requires you to remain engaged so that important details are not missed. Always read required material before each lesson and take appropriate notes during the lesson. Be advised that some information may not appear in your text but might be covered during the lesson.

Please observe all school rules regarding tardies, food and drink, appropriate dress, and contraband. These issues are clearly discussed in your student handbook and will be addressed accordingly.

Use proper discretion when sharpening pencils or interrupting lessons for any particular reason.

Keep your work area clean. Respect all equipment and materials that are property of Elizabeth Forward, as well as items belonging to your classmates. Any equipment that you use must be cleaned up and returned to its proper place, as instructed, when you are through using it.

iPads and cell phones are to be used during class only for educational purposes. Under no circumstances should students be checking messages during class. Playing of games on your iPad during task time will result in a technology violation. I reserve the right to confiscate cell phones or iPads as per the Elizabeth Forward High School policy if I observe them being used for non-educational purposes without permission. Inappropriate use of iPads will result in a formal disciplinary report.

iPads will be used nearly every day. Thus, it is expected that you will always have your iPad and that it is adequately charged. No accommodations will be given for an uncharged iPad. If your iPad is not working, or was stolen, etc., please make sure you sign one out of the Media Center first thing in the morning.

Canvas

We will be using Canvas in some capacity nearly every day. Bell ringer questions will nearly always be posted on Canvas. This should be the first thing you look for upon entering class. You need not wait for the bell to actually ring to begin responding to the bell ringer question. I will usually post all worksheets and homework problems on Canvas as well, however your constructed response to each problem should be written out in your class notebook. Smaller assessments, such as formal quizzes and closure responses, will also occasionally be posted on Canvas.

Your Grade

Your grade will be based on the EF grading percent scale. The percent will be determined by an accumulation of points on tests (40-50 points, 1 or 2 per nine weeks - cumulative), "Friday" quizzes (10-20 points, 7-9 per nine weeks), labs (15-25 points, 2-3 per nine weeks), homework (5 points, 12 per nine weeks), in-class assignments (5-10 points, number varies), other small assessments such as closure quizzes (3-5 points each), SLO participation. You will be expected to know your current percentage at all times. As soon as you receive a grade on one of the aforementioned items you should record your point total along with the number of possible points for that item.

Grade percentages are cumulative for the year. Your final grade will be based on your final percentage as calculated from the average of the four marking period percentages.

Regarding homework, only a portion of the homework assignments will be graded, but you will be expected to attempt all assigned problems. Tests will almost always include problems that are patterned from the homework problems. I will spend some time in class reviewing assigned problems, but time constraints prevent us from reviewing every one of them.

12 homework assignments will be randomly chosen for grading during each marking period. 10 of these assignments will be kept as part of your grade. The lowest two scores will be exempted, or you may miss two assignments with no penalty. Makeup work will be accepted on homework assignments provided the student has an excused absence for the day that the homework was assigned or the day that the homework was checked. The student should make every effort to make up the homework in a timely manner. The student will be permitted one extra day to make up the assignment for each day of class missed to receive full credit. All late assignments beyond this constraint will result in a zero grade. However, any late assignment can

be made up for half credit, provided it is completed in my presence. Extenuating circumstances will be dealt with on an individual basis. A zero will be given if the student's absence is unexcused on the day the homework was either assigned or checked.

Tests and quizzes should also be made up as soon as possible following an absence. Please see me immediately upon your return so that we can schedule your exam. Please note that tests and quizzes cannot be made up during regular class time except under extreme circumstances, or if I deem it an acceptable time to do so.

Late Work

Late assignments (excluding homework) will be accepted up to five school days past the due date, after which a zero will be recorded in the grade book. For each day past the due date 10% of the possible points will be deducted from the earned number of points on the assignment.

Example: Assignment worth 25 points.
Earned grade 21 points
2 days late, subtract 5 points (20% of 25)
Final grade on assignment 16 points

Note that if a student is given advance notice of a due date, and the student knows that he/she will be absent on that date (such as for a sporting event, field trip, etc.), the student is still responsible for submitting work on time or making suitable arrangements with the teacher for submitting said work.

Extra Help

I will hold help sessions every Tuesday and Thursday (schedule permitting) after school from 2:30 to 3:30 for students who need extra help with problem solving, or who need to revisit concepts covered during regular class. This time can also be used for lab makeups. I will also make myself available on other days after school for students who are unable to attend the help sessions. I usually can accommodate students for extra help during my plan time also, but please make arrangements with me in advance.

I strongly encourage you to find at least one regular homework partner from any of the three Honors Physics classes or seek help from any of the current seniors hwo have taken this course.

Use of Electronic Devices During Class

We encourage students to use their Ipads or cell phones in appropriate situations to enhance their educational experience. However, out of respect for your teachers and fellow students, there are some basic rules of etiquette that we require you to follow.

1. Devices shall only be used during lessons *if* they are part of the lesson.
2. Students should not be wearing earbuds/headphones during class without explicit permission from the teacher.
3. Students shall turn off and/or store devices immediately when directed to do so by the teacher.
4. Failure to follow any of the above rules will result in disciplinary action (verbal reprimand/warning, call to parent/guardian, teacher detention, office referral). All actions will be recorded in ABE.

Academic Integrity

The science department has adopted the following guidelines for academic integrity. As always, it is very important that your grade be a true reflection of your own work and effort. Ask yourself, "Am I here to learn something new, to expand my understanding of the universe, or am I just trying to get a grade?"

- Try! Listen! Think!
- Use your iPad and phone for educational purposes
- Be prepared for your class
- Follow directions
- Be safe in the lab
- Do not cheat
- Do not get off task or give up
- Do not damage school property

Honors Physics- Mr. Wesolowski

***Please keep the information sheet in your notebook and return only this signature sheet.**

I have read and understand the above information

Student Name: _____

Student Signature: _____

Signature of
Parent or guardian: _____

p.s. Parents,
I will be contacting you randomly throughout the school year either by phone or email (hopefully with "good" news). Therefore, I need to know your email address and/or telephone number(s). Please also indicate the best time to call if I need to speak with you directly.

Email: _____

Telephone #: 1.) _____

2.) _____

Best time to call: _____