

Instructor: Mr. Phillip Bitzer

Office Hours: Monday and Wednesday, second half of lunch; other times by appointment only

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Welcome to Physics 101. In this course, you will learn how the world works around you. It has been said that physics is the Rosetta stone between nature and mathematics. Therefore, you need math in order to do physics. The math we do, however, is restricted, to algebra skills and some geometry. If you feel you do not have the skills to start this class, you must see me immediately. I will happy to help in any way I can.

In this course, you will be expected to do homework every night. Homework should be done completely, i.e. there is no credit for doing half the assigned problems or all but 2 of the assigned problems, etc. Homework is assigned so you can get better at the problems we are working on. Giving a partial effort will not help you.

Your grade in this class will be based on the amount points you have earned divided by the number points possible. Typically, there will be two to four traditional tests each quarter, each worth 100 points. We will have short 10 minutes quizzes, both announced and unannounced, worth 10 points. Each quarter you will at least one major lab report, worth one test grade. In addition, there will be mini labs, worth varying amount of points, up to 100. Each quarter you are responsible for an article summary for 5 percent of your quarter grade. To get your grade, simply add up the number of points you have and divide by the number of points you could have. That is your grade. You are expected to complete all assignments on time! There is no excuse for turning late work; your grade will be severely affected.

If you have to miss class, we will miss you. However, class will still continue. Do not come to class the next day and ask the instructor what you missed. Ask your classmates. Ask the instructor if you have questions concerning the material missed. You will have the same number of days to make up work that you missed school. For instance, if you miss on two days, you will have two days to make up any work. It is the student's responsibility to schedule make up tests. See the related rule in your handbook. It would behoove you to miss as little as class as possible.

This classroom will be using technology often. We will be using the web site extensively. You can find the presentations from class there, as well as various handouts. You can also check your grade, under your alias. You are also required to have an email account for this class. If you do not have one, I suggest getting a free Hotmail account. For information on how to do this, see the web site. You are also strongly encouraged to sign up for a free AOL Instant Messenger Account. We will be holding various tutoring sessions online, and this is media I would like to use. If you do not have an account, see the web site on how to acquire one. Also, there are a number of free downloads that you MIGHT need. Microsoft Powerpoint viewer and Adobe Acrobat Reader are two free programs you may need. If you need them, follow the instructions on the web site. Also, make sure your browser is Javascript enabled.

Calculators are a must for this class. You are already required to have a graphing calculator for Advanced Math, and we will be using the calculator as well. However, these calculators, the TI class, are NOT allowed on tests. If you insist in using them on tests, I will erase EVERYTHING in your memory! This includes all games and any preinstalled programs. I recommend having a cheap calculator capable of doing trig for tests.

You need to purchase a 2 different 3 hole, 1 inch binder for this class. In this you will be keeping a portfolio of problems and labs we do across in class. Have this by Monday, August 25.

A final note: this is a physics course. We will be exploring many things of which you have prior knowledge. A lot of notions will right; some will not. However, you do not learn unless you ask questions. As long as you are prepared, I am happy to answer any questions. There are many deep and interesting questions that arise; feel free to ask.

I have received the physics syllabus and understand all policies outlined. I have asked any questions I may have and received satisfactory answers. This is due back to the instructor on Monday, August 18.

Student (print name):

Student (sign name):

Parent (sign name):

A general course outline is as follows, keeping in mind it is subject to change at any time,

1. Math Skills
2. Newtonian Mechanics
 - (a) One dimensional Kinematics
 - Vectors
 - Distance/Displacement
 - Velocity
 - Acceleration, g
 - (b) Two Dimensional Kinematics
 - Projectile Motion
 - Circular Motion
 - (c) Dynamics (2nd quarter)
 - Newton's Three Laws of Motion
 - Kepler's Planetary Laws
 - Newton's Law of Gravitation
 - (d) Two dimensional Dynamics
 - Inclined Planes
 - (e) Momentum and Energy
 - Momentum, conservation
 - Work
 - Kinetic and Potential, conservation
3. Fluid Mechanics ????
4. Thermodynamics (3rd quarter)
5. Waves
6. Optics
7. Electricity and Magnetism (4th quarter)
8. Modern Physics