Physics is the science that gives the mathematical explanation of the world. "[I see in Nature](http://b110.htm) a magnificent structure... that must fill a thinking person with a feeling of humility..." -Albert Einstein

**Materials**

* Book: [Open Stax University Physics (Vol 1)](https://openstax.org/details/books/university-physics-volume-1)
* The notebook for notes & homework. It can be anything you wish, as long as you have one location to put all of your materials.
* Pens, multiple colors for notes
* Pencils and an eraser
* Calculator either TI-83, 83plus, 84, 84plus, 89, Nspire CX, geogebra app (phone)
* The calendar link to my google calendar can be found on X2. The google calendar can be added to yours by clicking in the lower right corner of mine. Then updates will be posted to you.
* You also must have an account with schoology.com (the access code is given in class)

**Description/Objectives**

This course is designed to cover the big ideas covered on the APC Exam: kinematics, energy, momentum, circular motion, gravity, rotation and oscillations. When this course is finished you should be prepared to take the APC Exam or move into college physics with confidence. This course will use word problems frequently, as well as much independent inquiry labratory work. With a clear reflection of what you put into the course will be what you get out of the course.

# **Expectations/Rules**

* Enter room, place your phone (on silent) into your given slot in the rack by the door. If you wish you may place your phone on the charging station at the front of the room instead.
* Take out notebook, pencil, calculator and homework. Write the numbers of the problems you wish to go over on the board. If a number you need is already written, place a check mark next to it.
* You are responsible for finding time to come and go over other problems you did not understand through reviewing the solutions and asking quesitons.
* We will go over the most requested problem from the previous night’s homework.
* After the new topic for the day has been discussed the remaining time in class will be used to work on inquiry labs/group problems/homework.
* If you need extra help (better to be pro-active, not re-active) I will be available in 104.
* Practice in daily classroom behavior respectful attitude towards the other member of the class.
* No food allowed in the room. Drinks must be in a closed container.

# Policies

The power points of the notes are available online at schoology.com, for you to print out if you wish. This can then be used as an outline of your notes. You will then write and fill in around this outline. Your notes and homework should be kept in one notebook in a dated and orderly fashion. You are not taking pictures of displayed work, write it down! This helps keep it in your head.

There will be approximately 45-60 minutes of homework a night. If you are absent you can find the homework online, by checking my website/calendar. Sometimes homework will take longer, but I will try to balance these days with a lighter day, at a time of my choosing. You will have to be the judge if homework is taking too much time; can you afford not to finish that night, and still understand what is happening in class the next day. The remaining assignment should still be finished at a later date. I don’t expect this to be a normal occurrence; it will not be good for your academic success.

**Extra Help Schedule:** Every day Thursday after school, please let me know you are coming in advance. It will be on a first come first serve bases. If I am not in 104 **wait**, I should be there shortly. It is much better to see me as soon as questions arise instead of waiting to see if you understand it after a couple of days.

# **Grades**

**Homework** - This is considered a formative assessment, so it will only be worth 10% of your quarter grade.

* **Daily assigned problems** are your responsibility to do, so you can understand the material. We will have periodic homework quizzes. These will be on assignments you have already had time to ask questions on. You will have 3 minutes to redo the problem of my choice. You are allowed to have your notebook for these quizzes. Being absent/field trip/assembly/meeting for the assignment is not a reason to be excused from the quiz, as you are responsible for making up work when you are out.
* **Flipping Physics Video Notes** are also required. The links to these assignments and video are found in schoology. Notes are to taken as established by the rubric. These must be turned in on time to receive any credit. If you have an excused absence you have two days to complete in order to receive credit. If you have been absent for an extended period of time please see me within two days for a modified due date.
* Reminder all homework must be completed in order to be elegible for Test ReTakes!!

**Quizzes** - This is consider a formative assessment, so it will only be worth 10% of your quarter grade.

* Quizzes will be given a couple times during each chapter. They will only cover one objective/standard at a time. They will be take home quizzes on schoology, and will be timed. They will be made up with short answer questions or multiple choice questions. Some mathematical problems will also be done. For each quiz you use a copy of the equations sheet for the AP1 Exam. This is avaliable for you to print in schoology. These are primarily for you benifit, as they provide a check in to see how well you have been understanding the material.
* You have one attempt to answer the quiz, if you are interupted or exit the quiz you will not be allowed back in, and a zero will be given. So be prepared before starting. I will ask you to have a timer and two different colored writtiing instruments. I will give you an AP time (pace) at which point I would like you to change colors for your writting instrument. This will allow you to monitor your pace and better prepare for the test/AP exam as both are more time critical. Work is passed into me the next day. Expect to take the quiz you missed due to absence, the day you get back. With worked passed in the next day. If you complete the quiz a NTI(zero) will be assigned.
* Using units/scientific notation/significant figures/conversion correctly on a quiz will be its own separate grade column in X2. This column will change with each quiz taken.
* As quizzes are prepartory for tests, if quizzes are not completed you will be enilligible for test ReTakes!!

**Labs** will be done with different frequency depending on the chapter we are in. They will be shared into your google drive. You will have prelab questions in schoology before most labs. Labs will be submitted electronically, there is nothing for you to print off, all I do is change your access priviledges. I would establish a folder on your drive for a copy of all the labs we have done, so this can be submitted to colleges for lab credit if you wish. For each lab there will be analysis questions that come with it, that need to be answered in complete and thoughtful sentences (rubric). There is a rubric at the end of each lab document, so you know exactly how you will be graded. I will also have the rubric attached through goobric. This is a chrome extension you might find helpful for peer grading/self evaluation. Labs are group documents, so in the theory that many hands make light work, a due date will be given as either the next day class meets or at most one extra day. If you miss a lab activity you will need to find time after school to come and complete it. I would advise bring a friend to help in the data gathering process. You have three days after the lab has been completed to get your data collected. I will be changing sharing permission from you general group when you have been absent. A lab is due the day and period that class meets, with no exception. If you are absent, the lab is still due. Since I am the owner of the document the lab is done and your access will be switched to comment only at the beginning of the period the lab is due. These are also considered a formative assessments depending on length, I will make them worth more less points given in the category, they are worth 25% of your quarter grade.

**Test**s will be given with at least two days notice. These will be approximately 60 minutes in length. They are to be completed in pencil, to receive any credit. For each test you will be given AP1 Exam equation sheet. They will be given in an AP style format; mulitple choice questions and generally two FRQ. This will unitilize standards based grading, have you answered the questions correctly for a given standard/objective. The standards/objectives for each test will be posted in advance. Each standard/objective will be its own separate test grade based on the rubric scale. Please see me with in 2 days after being out to schedule make ups. These will be your summative assessment so it will be worth 55% of your quarter grade.

**Test Re-Takes**

* At my discretion!
* Only allowed twice per quarter.
* You must be up to date on all your work, to demonstrate the proper amount of work done in preparation for the first test.
* ReTake request form must be submitted within 48 hours of grade being posted in X2.
* A plan must be laid out that does not repeat what should have been done the first time. Such as read text book and do extra problems from text book, review notes, and redo schoology problem sets. Your plan must have three parts to help prepare for the reTake.
* On day of retake come with evidence of all the additional work you have done to relearn the material. This will be submitted to me. No evidnece provided, no reTake will be given. You can set up another time to come and present evidence then.
* You are still responsible for current course work.
* Only need to reTake weak standards, not whole test.
* These are not done the last week of a quarter.

If you have any questions or concerns over your progress or your child’s progress, please e-mail me at hubbardm@chelmsford.k12.ma.us it is the easiest way to get in touch with me. I can either e-mail you back or you can leave your number and times when I can reach you.

Please sign and upload a copy of the signature page to the assignment on schoology. A copy is available online for reference at my website and schoology.

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I have read and understand the course expectations for Ms Hubbard’s class.

Signature of Student

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Signature of Parent

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