

College Prep Physics Course Syllabus 2009-2010

Course description: This course emphasizes comprehension of physics through concepts, problem-solving, and experimentation. Physics is the basis of all the other natural sciences in explaining observations found in nature. The first semester will focus on Mechanics. The emphasis of Physics second semester is on Electricity, Magnetism, Wave Mechanics, Thermodynamics, and Nuclear.

Textbook: *Conceptual Physics* by Paul G. Hewitt, replacement cost: \$56.00

Instructional Calendar:

First Semester

Topic	Book, Chapter, Start Page
Introduction to Physics	1
Kinematics: 1-D motion	2
Kinematics: 2-D motion	3
Dynamics: Forces and Newton's Laws	4, 5, 6
Universal Gravitation	12, 13.1-13.3
Momentum and Impulse	7
Energy, Work, and Power	8
Angular and Rotational Motion	11.1-11.7

Second Semester

Topic	Chapter, Page
Static Electricity	32, 33.1, 33.2, 33.4, 33.5
Current Electricity	34.1-34.7, 43.11, 35
Magnetism and Electromagnetism	36, 37
Waves and Simple Harmonic Motion	25
Sound	26
Light	27-31
Thermodynamics	21-24
Nuclear	39, 40

Required Classroom Materials

- 3-ring Binder (at least 1")
- College Ruled Notebook Paper
- Scientific Calculator
- Blue or Black Pens and # 2 Pencils
- Colored Pencils
- Student Agenda/Calendar

Teacher Wish List

- Tissue Paper (Kleenex)
- Printer paper
- Hand Sanitizer
- Paper Towels
- Windex or 409

Website: Check on the Parkview webpage for my main site.

(This website will contain information such as assignments and links that may be useful.)

Grading:

35%	Major Grades
20%	Daily Grades
20%	Labs
5%	Benchmark Midterm
20%	Final exam**

* School guidelines for cheating will be followed. Students who cheat will be referred to administration. A record of cheating offense may mean future ineligibility for honors, clubs, and recognition.

** The School Board has instituted countywide final exams – Benchmark Post Tests. This necessitates that we cover the curriculum in the order specified by the county, so that students will be adequately prepared for the content of the test. It also means that students will need to take responsibility in keeping up with the pace of the course and that they will seek help when necessary, so they won't fall behind.

Make Up Work: (School rules apply concerning excused/unexcused absences.)

1. It is the responsibility of the student to inquire about make up work on the day of return to class.
2. For all *previously* announced tests, projects, notebooks, and “big” assignments missed, the due date is **one day** from the day of return from an absence. After that, the late work policy will be in place.
3. For all work assigned *during* the absence, the due date is **5 days** from the date of return. After that, the late work policy will be in place.
4. Late Work: 10 points will be deducted for each day an assignment is late until zero.

Policies:

All students are responsible for all school policies found in the student handout that you signed at registration.

You are a young adult and are responsible for yourself and your behavior. This means that you act with respect towards anyone or anything with which you are involved. This of course includes students, teachers, other school personnel, furniture, lab equipment and school property. Because you conduct yourself in this manner, class is enjoyable and productive and you benefit greatly.

Responsibility and respect cover all the usual classroom rules... no sleeping, grooming, profanity, gum, hats, bare midriffs or tank tops (as defined in the student handbook), etc.

- Be a gracious host to substitute teachers. The sub is your “guest” and needs your assistance and cooperation.
- Follow safety directions.

Students will be expected to follow the PHS Honor Code on all assignments and examinations.

Violation of the rules above will result in a warning, detention, parent conference, or possible referral to an administrator. The consequence will be based on the severity of the infraction and decided on by the teacher.

Class Procedures:

1. Pick up personal items and trash before leaving
2. Put equipment back in the proper place
3. No food, drink, or gum
4. Be polite & productive

Consequences for lack of responsibility:

1. reminder/warning/discussion with me
2. detention after school with me 30 minutes
3. parent contact and 45 minutes detention
4. administrative referral

Safety in the Laboratory:

The science laboratory is a safe place to experiment if you are careful. You must assume responsibility for the safety of yourself and your neighbors. Following are some safety rules to help guide you in protecting yourself and others from injury in the laboratory:

1. Follow all instructions given in the written lab and by the teacher.
2. Do not proceed with any laboratory experiment unless instructed by the teacher.
3. Follow proper techniques which include the proper clean-up and the correct handling of equipment and materials.
4. This equipment is extremely expensive and in some instances, very fragile. Use it responsibly and ask questions if there is any doubt concerning the operation of the equipment.
5. Know what to do in case of an emergency including knowing the location and use of safety equipment.
6. Never eat, drink, or chew gum in the lab.
7. Conduct yourself in a responsible manner at all times during lab.

WebAssign Information:

WebAssign is a national homework tool designed for college and high school students. You will need to use your home computer to do these homeworks. If you do not have access to a computer at home, you may use the computers in the media center or the classroom computer before or after school.

You will enter your answers into WebAssign and receive instant feedback on which answers are correct. You will also have 5 submissions per question, so you have 5 chances to score a 100 on each homework. If you encounter problems with the software before a homework is due, you must contact me at least 24 hours prior to the due date so I will be able to give you a hard copy to complete. Hard copy homeworks will only be graded once!

While there are benefits to using WebAssign, there is also a cost. WebAssign charges the school to use its program and we ask that students help out with that cost as well. We ask that each student contribute \$10.50. If this cost poses too much of a financial burden on a family, exceptions may be made. Students also have the opportunity to choose not to pay the \$10.50 and not enjoy the advantages of using WebAssign. If a student does not wish to participate, I will provide the student with a printout of their assignment and then collect it at the beginning of class the day it is due. Again, the hard copy homeworks will only be graded once. The 5 submissions is a luxury that WebAssign provides and if you choose not to use WebAssign, you choose to only have one submission.

Useful webassign info:

Web address: www.webassign.net/login.html

Username: your first name, dot, then your last name. For example, Isaac Newton would be "isaac.newton"

Institution: parkview.ga

Password: your student ID number (you may change your password once you log in)

When entering your answers, be sure to use the following guidelines:

- Do not use commas or spaces
- Always enter the correct significant figures in your answer
- When using scientific notation, use an "E". For example, "5.20 x 10³" should be entered as "5.20E3". The "E" may be capitol or lower case.

The teacher reserves the right to adjust course syllabus, policies, and/or grading as necessary.