



West Potomac High School

Physics 1 Syllabus

2015-2016

Instructor

Physics Collaborative Team

Garret Hubbard gshubbard@fcps.edu
Chris Promen cpproment@fcps.edu
Steve Rezendes srrezendez@fcps.edu
Shari Terry sdterry1@fcps.edu

Commented [HGS1]: Let's add our emails

To contact members of the Physics Collaborative Team please call the Main office at 703-718-2500. We pledge to return your call or email, within 48 hours.

Course Overview

The goals of Physics I are as follows:

- To understand concepts in physics mathematically and conceptually.
- To develop critical thinking skills and to improve problem solving abilities.
- To develop goal-orientated, collaborative skills.
- To increase scientific literacy and writing skills.
- To conduct independent science investigations.

Course Outline

There are 12 units of study in the course that emphasize content, thinking and writing skills in equal measure. There is a period of review and preparation for the end of the year activities, including the end of year assessment given by Fairfax County Public Schools. Electronic copies of all course and class handouts as well as assignments are posted on the course Blackboard site. The time frames outlined here are subject to change as circumstances (for example, snow days) warrant.

- **Unit:** 1 Measurement and Scientific Method (1-2 Weeks)
- **Unit:** 2 Constant Velocity(1-2 Weeks)
- **Unit:** 3 Uniform Acceleration (1-2 Weeks)
- **Unit:** 4 2-D Motion (1-2 Weeks)
- **Unit:** 5 Newton's Laws (2-3 Weeks)
- **Unit:** 6 Energy (2-3 Weeks)
- **Unit:** 7 Circular Motion(1-2 Weeks)
- **Unit:** 8 Impulse and Momentum(1-2 Weeks)
- **Unit:** 9 Electrostatics (1-2 Weeks)
- **Unit:** 10 Circuits(1-2 Weeks)
- **Unit:** 11Waves (1-2 Weeks)
- **Unit:** 12 Optics (1-2 Weeks)
- **Review**

Course Readings

Each student will have access to a copy of Conceptual Physics by Paul Hewitt. This textbook is primarily used as a resource in class. A variety of primary and other secondary sources will be used throughout the course, sometimes in lieu of chapters in the textbook, for example *Physics Classroom* (www.physicsclassroom.com) Hard copies of these readings will be available to students in class and students may access electronic copies through the course's Blackboard site.

Supplies

Students are requested to have the following items in class on a daily basis.

- Notebook
- Pencil
- Calculator (does not need to be a graphing calculator)
- Glue Stick

If you have any concerns about acquiring these supplies, please speak to the course instructor, so that arrangements can be made to support your learning in the course.

Assessment & Grading

The focus of assessment is to provide feedback on a students' learning process and to measure students' level of performance. Information generated through assessments is used by the teacher and students to reflect and then make adjustments in the learning process that increase student learning over time.

Grades will be weighted as follows:

Tests	25%
Labs	25%
Notebook	10%
Homework	5%
Classwork	15%
Quizzes	20%

- **Laboratory Experiments:** Laboratory experiments are an essential part of Physics 1. Experiments will be standards based. If students miss a lab, they must make immediate arrangements to make up the lab after school.
- **Homework/Classwork:** Students in Physics 1 are expected to spend at most one hour a night completing assignments. This includes reading, completing practice problems, analyzing data and reviewing material for class. Students who do not spend time outside of class working towards mastery of material will find the class extremely difficult.
- **Tests and Quizzes:** Students will take a unit test after completing each unit of study outlined in the previous section. Students will take quizzes weekly. All assessments are a way of informing students of their progress in the course. Students are expected to show mastery on end of unit tests. Progress towards mastery is expected on weekly quizzes. Quizzes may be retaken only students have a passing grade on their notebook check.
- **Retakes:** Students may retake unit test if they complete the "West Potomac Science Department Retest Permission Slip." Students who do not do this will not be able to take a retest. This form is attached at the end of the syllabus.

- **Late Work:** We acknowledge that students will sometimes need flexibility to meet deadlines as a result of extracurricular activities, technological failures &/or other kinds of last minute interruptions. Therefore, assignments are accepted after assigned due dates following these guidelines.
 - **Notebooks are due on the day that they are checked and can not be handed in late. STUDENTS MUST HAVE THEIR NOTEBOOK EVERYDAY AND WILL BE CHECKED BETWEEN 1 AND 3 TIMES PER QUARTER.**
 - **Students are given a grace period of five days to complete other assignments and will not receive a penalty at all. Each week an assignment is late after the five days, 10% will be deducted per week. After the fourth week of an assignment being late that assignment will not be graded for any credit.**

- **Calculation of final grade:** The following breakdown will be used when calculating the final grade for the course:
 - 1st Quarter: 22.5%
 - 2nd Quarter: 22.5%
 - 3rd Quarter: 22.5%
 - 4th Quarter: 22.5%
 - Final Project: 10.0%
 - (The final project will include a portfolio project so all work done from the school year should be kept and not disposed of.)

- **Revising & Resubmitting Assessments:** Retakes on quizzes and tests are an option designed to help students demonstrate mastery on **major** assessments. A retake on a quiz or test can be requested by a student. A retake can also be required by the teacher or a student's support team (e.g. the Individualized Education Plan team or a parent/student/teacher partnership). When doing retakes, students will be expected to complete a new assessment, not repeat the original. The student should also submit the original assignment with the retake if it was returned to them by their teacher (to document learning over time).

A retake follows additional learning to help achieve mastery. These activities may include test corrections, after school or Wolverine Time review with the teacher or peers, and/or other remediation activities created by the teacher or course team.

Additional effort and retakes must be completed within the timeframe established by the teacher to accommodate quarterly grade deadlines. Retakes will not be allowed in the last week of the quarter. In support of mastery learning, the retake opportunity will be the grade recorded (unless otherwise specified by the teacher).

The final course grade reflects students' progress towards mastery from September to June of content knowledge and the development of their skills and ability to use course content. When calculating a final course grade the starting point for will be an average of **the four Quarter grades**

counting 90%, and the final exam weighted at 10% *combined with* consideration of a student's most recent demonstrated level of performance as well as revised assessments, such as essays.

PLEASE NOTE THAT Parents/Guardians will be able to view their student's grade on SIS. ParentVue will be available on 9/21/15.

Commented [HGS2]: Changed this a little bit



West Potomac High School Physics 1 Syllabus: Student Signature & Information Sheet

2015-2016

I have read and understand the expectations and procedures described above for Physics 1. *Throughout the year I agree to follow and support them, and when I find that I cannot follow and support them, I agree to discuss my concerns with my instructor.*

Name (printed): _____

Signature: _____ Date: _____

Student's e-mail address: _____

Please respond to the following questions.

Do you have convenient access to a computer and reliable internet access? Is your access at home or someplace else? Is your access to the computer limited, for example do you share this computer with anyone else?

What (3) words would you give to describe yourself?

Is there anything else you think the instructor should know about you as a student in this course?



West Potomac High School

Physics 1 Syllabus: Parent/Guardian Signature & Information Sheet

2015-2016

I have read the expectations and classroom procedures described above and will support them. Throughout the year I agree to support them, and when I find that I cannot follow and support them, I agree to discuss my concerns with my student's instructor.

Name (printed): _____

Relationship to student: _____

Signature: _____ Date: _____

Please provide the following information.

Parent/guardian's e-mail address: _____

Phone number (home): _____

Phone number (work): _____

Please respond to the following questions.

What are THREE (3) words/phrases that best describe your son/daughter's personality?

What are TWO (2) words/phrases that best describe your son/daughter academically?

Is there any additional information that you feel the instructor should know about your student in this course?

Please complete **BOTH** sides of the syllabus signature sheet.