

AP Physics 1

Syllabus & Policies

Mrs. McDevitt, Room C103
2014-2015

AP Physics 1 is an introductory college level physics class and is taught as a first year Physics class at WLHS. This class is called Advanced Placement Physics 1 by the College Board and does not require calculus. Of course preparing for the AP exam will be a large part of class, but hopefully, we will go beyond that. As a result of taking this course, you will increase your knowledge and understanding of the physical world, and perhaps more importantly, you will develop problem solving and decision making skills that will enable you to do well in future college courses and in life. We will be covering material at a fairly rapid pace. In order to do well in this class, you must complete all of the assigned reading and problem sets timely, thoroughly, and with thought. Many college students return after having taken this class and share how they are a top student in their college physics class because they took AP Physics in high school.

Content Outline:

Topic of Study:	Textbook Chapters	Tentative Schedule:	Amount of class time:
Kinematics in One and Two Dimensions	Ch. 2-3	S1: Weeks 1—3	3 weeks
Dynamics	Ch. 4-5	S1: Weeks 4—8	5 weeks
Circular Motion and Gravitation	Ch. 6	S1: Weeks 9—10	2 weeks
Rotational Motion and Conservation of Angular Motion	Ch. 7	S1: Weeks 11—13	3 weeks (4 weeks)
Impulse, Momentum & Conservation of Momentum	Ch. 9	S1: Weeks 14—16	3 weeks
Energy and Conservation of Energy	Ch. 10 & 11	S1: Weeks 17—18 S2: Week 1—2	3.5 weeks (4 weeks)
Simple Harmonic Motion	Ch. 14	S2: Weeks 3—4	2 weeks
Mechanical Waves & Sound	Ch. 15 & 16	S2: Weeks 5—7	3 weeks
Electrostatics	Ch. 20 & ? 21.1-5	S2: Weeks 8—9	2 weeks
DC Circuits	Ch. 22 & 23	S2: Weeks 10—12 (ending on April 25)	3 weeks
			TOTAL: 30 weeks

Exams: This class will be largely dominated by exams totaling **70% of your grade**. Included in this category will be projects and lab reports. Possessing complete and thorough understanding of assigned problems sets is the key to you performing well on unit exams.

Homework: You will need to be very responsible and independent in your learning, and you completing the homework assignments are critical to your success in this class. Homework may consist of reading your textbook while taking notes, and/or reading a Power Point while taking notes, and/or problems assigned out of your textbook. You can expect 5—10 problems (aka, “problem sets”) each night following class and must be solved using the “Equation-Substitute-Answer” method, **showing your work in a reasonable number of steps**. *Problems done without showing work will not be accepted.* All answers to homework will be posted on my website, and it is expected that you will check your answers independently to each and every homework problem assigned for correct thinking and accuracy prior to class. We will **not** spend class time going over homework problems. Coming to class with your homework completed on time, completed with accuracy and with thought, is a major component to being successful in this class and on the AP exam. As well, your success in this class will also greatly depend on how much review you do on a nightly, and weekly, basis. Reading the text and looking over sample problems has proven very beneficial to student success. Homework assignments, and included in this category are laboratory activities, are worth **15% of your grade**.

Quizzes: There will be quizzes during the year. These quizzes will be checkpoints—making sure you know where you stand prior to the test. The quizzes will consist of material already covered in class,

mostly focusing on the homework problems. You are expected to stay current on all homework, and therefore, quizzes will sometimes be announced, and sometimes unannounced. Quizzes will total approximately **15% of your grade**.

Labs and Activities: Laboratory Activities will be worth 15% of your grade and will be included in the same category as homework. Laboratory Reports and Projects (which will be done less often than Activities) will be included in the Exam category which is 70% of your grade. After the AP exam in May, we will continue to do laboratory activities and projects.

Grades:

A:	90 – 100%
B:	80 – 89%
C:	70 – 79%
D:	60 - 69%

Office Hours: I am available every morning from 7:30 – 8:15 (unless I have a meeting). Please sign-up on the calendar to inform me of a time you know you're coming in for a specific task (making up a lab/activity, quiz, exam, or simply getting some help). This helps me to remember to be ready for you so that we may be timely.

Supplies & Resources: Every day you will need: note paper, pencil, scientific calculator, and a folder or binder to keep your handouts/notes/assignments.

AP Test: The AP Physics test will be on Monday, May 12th 2015 (noon - 4pm approximately) and all students are **required** to take it. There is an \$89 fee for this test which will be charged to your account through the book keeper's office. Information on this can be found at <https://apstudent.collegeboard.org/apcourse/ap-physics-1> or from your friendly Physics teacher. In order to prepare you best for the AP exam, questions on in-class exams and problem sets will be partially taken from practice "AP Physics 1 College Board Exams."

On-Line Grades: Grades will be completed on-line; therefore, you may check your updated grades from any computer having an internet connection. Grades will be updated and posted every week, as well as immediately following an exam.

AP Physics Website: You will be required to access homework assignments on a daily basis from my website via "AP Physics" and then click on the "Weekly Calendar" link. http://www2.wlhs.wlww.k12.or.us/McDevitJ/weekly_calendar.htm If accessing my website to get daily assignments is a problem, the Weekly Calendar for this class will also be posted on the wall by my desk computer. All answers to homework will be posted on my website, and it is expected that you will check your answers independently to each and every homework problem assigned for correct thinking and accuracy. All in class PowerPoints can be found on my website as well along with links to other useful information.

Unexcused Absences: If your absence has been determined unexcused, then you will *not* be given the opportunity to make-up class work or exams done that day. (*Painful if a test day! See your school planner for definitions of excused absences.*)

Excused Absences: Please see me before school (NOT during class time) to determine the due date of any work missed while you were absent. If you know of an absence ahead of time, let me know so that I can give you the work before you are gone. Usually, you will be given one school day for every day that you missed to complete the work. Plan to make up any labs/activities missed BEFORE school. Any activities/labs missed need to be made up the day you return; otherwise, the equipment may be put away and you may miss your opportunity! Remember, it is **your responsibility** to find out what you missed (from me) right away—and always do this outside of class time.

Late Work: 20% is taken off for each day work is late. Late work can only be turned in up to the day of a unit exam. After a unit exam, assignments for that unit will not be accepted.

Reassessment: If you are still developing your understanding after the unit exam, you may have another opportunity to demonstrate your understanding, if you comply with the following condition and if you scored below 70% on the exam: You must show me all of your homework, notes, class work and labs for that unit when asked (it may be at any moment), and only if all work is complete will you be deemed the opportunity to reassess. If your work is in any way incomplete, then you forfeit the opportunity to reassess for that unit. If you qualify for reassessment, you must schedule that time with me immediately upon learning of your score IN PERSON at my convenience (before school is best... NOT during class time). Reassessments are scheduled at my convenience. The maximum credit received on a reassessment is half of every point missed on corrected work up to a maximum of 70%.

Class Expectations:

- We help each other learn.
- We respect each other's learning.
- We have our materials and are learning from the moment the bell rings until I dismiss the class.
- We handle lab equipment, textbooks, and technology with care.
- We accept and respect each other's differences.
- We help create a safe environment in which we all feel comfortable asking questions.
- If you are absent, you are responsible for obtaining handouts and notes and then also checking with me to make arrangements for extra help or to make-up quizzes, exams, labs or activities. This cannot be done during class time. This may be done before school, preferably.
- Assignments are no longer accepted after a unit is complete (the unit is complete on test day).

Your success in this class really just depends on two things:

1) Be present in both body and mind, and

2) Do your work thoughtfully, thoroughly, and timely.

And finally, some thoughts and observations from people a whole lot smarter and older than your charming, charismatic physics teacher and worth consideration.....

"Through perseverance many people win success out of what seemed destined to be certain failure."

"Most of the important things in the world have been accomplished by people who have kept on trying when there seemed to be no hope at all."

"No one becomes great at anything without practice."

"Some people succeed because they are destined to, but most people succeed because they are determined to."

"If you want to make an easy job seem mighty hard, just keep putting off doing it."