

# AP Physics 1

## Syllabus & Policies

Mrs. McDevitt, Room C103  
2017-2018

**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 is equivalent to a one-semester college algebra-based physics course. 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. 1—3	S1: Weeks 1—4	4 weeks
Dynamics	Ch. 4—5	S1: Weeks 5—9	5 weeks
Circular Motion and Gravitation Rotational Motion and Conservation of Angular Motion	Ch. 6—7, 8.1	S1: Weeks 10—13	4.5 weeks
Impulse, Momentum & Conservation of Momentum Energy and Conservation of Energy	Ch. 9—10	S1: Weeks 14—18	5 weeks
Simple Harmonic Motion Mechanical Waves & Sound	Ch. 14—16	S2: Week 1—4	4.5 weeks
Electrostatics DC Circuits	Ch. 20, 22, 23	S2: Weeks 5—10	6 weeks
			<b>TOTAL: 29 weeks</b>

**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:** Homework is a learning activity—an opportunity to develop understanding. 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 problems assigned out of your textbook, reading your textbook while taking notes, and/or reading a Power Point while taking notes. 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 completely, detailed and well organized** (e.g, diagram, givens, unknowns, equations, substitution, answer with units). *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; therefore, I encourage you to come in before school, during “Office Hours” to get help whenever necessary. 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.

**Quizzes & Class Activities:** There will be quizzes (usually one quiz per week unless we are taking an exam that week) during the year. These quizzes will be checkpoints—making sure you know where you stand prior to the unit exam. 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. Class Activities are also included in this category. Quizzes and Class Activities will total approximately **30% of your grade**.

**Labs:** 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.

<b>Grades:</b>	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), and I encourage you to come in and seek help during that time. 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. Textbook: College Physics, AP Edition, 2<sup>nd</sup> Edition, by Knight, Jones, Field.

**AP Test:** The AP Physics test will be on Tuesday, May 8<sup>th</sup> 2018 (11:30am – 4pm approximately) <https://professionals.collegeboard.org/testing/ap/about/dates> and all students are **required** to take it. There is an \$91 fee for this test which will be charged to your account through the book keeper's office. Information on the AP Physics 1 exam 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 1 Website:** You will be required to access homework assignments on a daily basis from my website via "AP Physics 1" and then click on the "Weekly Calendar" link. <http://www.wlhs.wlww.k12.or.us/Page/3975> If accessing my blog to get daily assignments is a problem, the Weekly Calendar for this class will also be posted on the wall behind 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 Power Points 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 scheduled with me 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).

**You have the opportunity to succeed in this class through hard work, determination, and realizing the following Goals:**

- 1) You are responsible for your own learning, and**
- 2) Do your work thoughtfully, thoroughly, and timely.**

**And finally**, some thoughts and observations from people a whole lot smarter and wiser 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.”

“Hard work will out-perform talent every day.”

“The secret of success is to be like a duck: smooth and unruffled on top while paddling furiously underneath.”