

Mr. Weller

AP Physics

Room: C-205

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Course Website: See Canvas page for course info, assignments, labs, and test review items

AP Classroom: This course may periodically access [AP Classroom](#). Create an account if you need to, and then use these join codes for AP Physics: LJPYE7

### Course Objectives:

1. Gain an appreciation of how Physics relates with our everyday experiences.
2. Understand the basic principles of physics (Mechanics; Kinetic Theory and Thermodynamics; Electricity and Magnetism; Waves and Optics; and Modern Physics), which will prepare a student for further study and/or the AP Physics 1 exam. Note: this AP Physics course is algebra based.
3. Learn proper lab techniques.
4. **ENJOY PHYSICS!**

### College Credit:

Students can earn college credit for this course in one of two ways:

- 1) Take the AP Physics 1 exam in May. Minimum score required and type of credit earned, vary by institution. Look up admission pages of the institution(s) you are interested in for more info.
- 2) Apply for EvCC credits. A student may earn 5 algebra-based college physics credits the first semester, and up to 10 more the second semester. See college/university admission pages to see how these might be transferred to the institution(s) you are interested in. Emails will be sent home to announce registration periods for these credits.

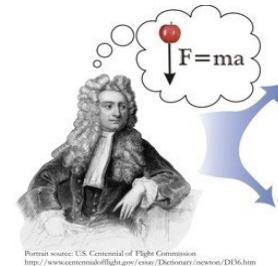
### Materials:

General: scientific calculator (graphing preferred)

Physics Text: [Physics](#), Cutnell & Johnson, 11<sup>th</sup> Edition. Notify instructor if you would like a downloadable copy in addition to the hard text.

### Grading Scale (percentages are rounded):

A 93% +	A- 90-92%	
B+ 87-89%	B 83-86%	B- 80-82%
C+ 77-79%	C 73-76%	C- 70-72%
D+ 67-69%	D 60-66%	F below 60%



### Expectations:

Physics is all about **relationships!!!** You will explore in this class the physical relationships and the laws which govern matter and energy; but just as important will be the relationships you will build with your peers. Being a good lab partner and finding good study buddies for homework and/or studying for exams will help you get the **most** out of this class.

Following is the nitty gritty which I hope you will have well under control.

1. Students abide by laboratory policies. This includes **no eating or drinking** (except for water) in the lab areas.
2. Students are **Respectful** of their peers, instructor, and school.
3. Students are **Responsible** for their learning. Current grade status will be available online. It is the student's responsibility to stay current with coursework, and to see the instructor with any concerns.
4. Students exhibit **academic integrity**. Students caught cheating will receive a zero on the assignment/lab/exam.
5. Students come early (I am here usually no later than 6:30am) or attend Panther Period to get extra help and finish/make-up labs and exams.

6. **\*\*NEW\*\* Cell phones AND ALL** other personal connected electronic devices will be turned off and put away while in class and during instructional time. Any exceptions to this will be dictated by a health/other individual educational plan or by a specific lesson requiring their use.
7. Abide by all other aspects of the student handbook.

#### Class Format:

*Homework* – will be assigned daily. Although the homework will not be collected until the day the test is given for each unit, **success** in the course will in large part be determined by how well the student is **prepared to discuss** problems/challenges on the **previous** night's assignment. Did I **impress** on you, this is a vital **KEY TO SUCCESS?!!!!**

*Bell Activity*- students may be called upon at the beginning of class to provide answers and explanations to the conceptual portions of the homework only.

*Assessments* –At the end of each unit, you will take an exam, consisting of multiple-choice questions and 1-3 free response questions. Some exams may be given via AP Classroom, so please make sure you register for that.

*Labs* – Generally, labs will occur each Thursday-Friday, except weeks when there is a unit exam

*Extra Credit* – is available upon successful proposal to instructor.

### AP Physics Course Outline

#### I. Mechanics ~ all of 1<sup>st</sup> of semester

- A. Kinematics ~ 3 weeks
- B. Dynamics ~ 3 weeks
- C. Gravitation and Circular Motion ~ 2 weeks
- D. Work, Energy, and Power ~ 3 weeks
- E. Momentum ~ 2 weeks
- F. Simple Harmonic Motion ~ 2 weeks
- G. Rotation ~ 3 weeks

#### II. Electricity ~ February

- A. Electrostatics ~ 2 weeks
- B. Current Electricity ~ 2 weeks

#### III. Other Topics

- A. Electromagnetism
- B. Waves
- C. Optics
- D. Atomic and Nuclear Physics
- E. Special Relativity
- F. Fluids
- G. Thermodynamics
- H. Other topics??

#### IV. The AP Physics 1 Exam and Beyond ~ May - June

- A. Review for the AP Exam (May 17)
- B. Finish "Other Topics" list