



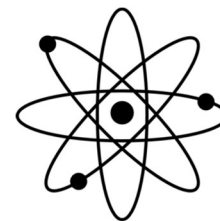
Physics in the Universe

Greg Poe

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2021-2022

Jackson High School



Instructor: Greg Poe

Room: C204

Office Phone: (425)-385-7000

Tutorial/Office Hours:

2:05 – 3:00 Tuesday, Thursday, or by appointment

*** I do not tutor students that show up after 2:30 without prior approval

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Course Description: This course introduces basic physics concepts and problem-solving strategies. Students explore motion, electromagnetism, and a variety of other topics through a series of real-world scenarios. Activities are designed by HMH and supplemented by a team of experts.

Course Outline:

FALL SEMESTER

Unit 1: Motion and Forces

Unit 2: Momentum and Collisions

Unit 3: Forces at a Distance

Unit 4: Energy Conversion

SPRING SEMESTER

Unit 5: Electricity and Magnetism

Unit 6: Nuclear Processes

Unit 7: Waves

Unit 8: Stars and the Universe

Paternity Leave: My first child, Anderson, should be born around mid-October. There'll be a substitute from that time until the end of the first semester. She'll introduce herself when we get to that point. Much of this syllabus will probably change at that time.

Canvas: Students need to bring their charged laptops every day. This class implements Canvas as much as possible. Assessments, assignments, the textbook, and peripheral software are all accessed, submitted, and graded via Canvas.

Parents may view our Canvas, but they cannot interact with its assignments. I recommend that parents download "Canvas Parent" that students download "Canvas Student" on their phones. More information about accessing Canvas can be found [here](#).

Gradebook: Parents and students can access grades [here](#). Note, all assignments are unweighted, meaning that they don't affect the average. I implement standards-based grading, which assigns grades for *learning*, not for individual assignments. Students earn about 12 weighted grades per semester, mostly determined by assessments.

Communication: The best way to reach me is via email. Parents and students may email me to request a date and time to conference. Additionally, I periodically email newsletters to parents.

Office Hours: I'm available for tutoring on Tuesdays and Thursdays after school from 2:05pm until 3:00 pm. I'm also free by appointment if those times don't work. During that time, students and parents can come to my classroom, email me to ask questions or initiate a Zoom meeting.

Standards-Based Grading: I implement standards-based grading. This means that students are graded for what they know, not for what they do. Compare it to traditional grading:

Traditional Gradebook

	syllabus	force worksheet	video project	cart lab	participate	notebook check	unit 1 quiz	freefall worksheet	unit 1 test	Semester Grade	
student 1	100	100	50	75	100	100	50	100	50	59	F
student 2	0	0	75	0	0	0	100	0	80	62	D

Standards-Based Gradebook

	Standard 1	Standard 2	Standard 3	Semester Grade	
student 1	A	B	A	3.7	F
student 2	B	C	A	3.1	B

Notice, the standards-based gradebook doesn't contain assignments, just standards. Each assignment provides evidence which I compile to determine a student's final grade for each standard. One misconception is that "only the test grade matters". This is not true. Every assignment is used to determine a student's grade. But, generally, I take the highest grade between the quiz, the test, or the retest grade to determine students' grades. For example, a student with an A on a quiz and an F on a test would receive an A for that standard. In reality, the gradebook looks like the graphic below. The grey columns are not weighted, meaning that they do not affect students' averages.

	Standard 1					Standard 2					Semester Grade	
	F=ma: PRETEST	F=ma: QUIZ	F=ma: TEST	F=ma: RETEST	Standard 1: FINAL GRADE	Gravity: PRETEST	Gravity: QUIZ	Gravity: TEST	Gravity: RETEST	Standard 2: FINAL GRADE		
student 1	F	B	B	A	A	F	A	B	-	A	4	A
student 2	F	D	A	-	A	D	C	B	B+	B+	3.7	A-

You may be asking, "why don't you just grade normally?" Traditional gradebooks can create piles of anxiety-inducing missing work. A student might have an A-level understanding but fail their class because of a missing exam. It doesn't make sense for student to fail a class when they understand the content. Standards-based grading ensures students are graded for *knowing* rather than *doing*.

Late Work: Daily activities do not need to be completed if missing, but students may still wish to complete them to prepare for the test. Every assignment is an opportunity to prepare for the unit project and exam. That said, students' grades are not directly penalized from missing assignments.

Grading for Mastery:

To earn an A, students must demonstrate mastery. This means they must apply their learning to something new. Merely reciting memorized material earns a B. Every assessment will have at least one question requiring application – these questions are how students earn A's.

Grade	Score	
Mastery	A	4
Proficient	B	3
Developing	C	2.2
Beginning	D	1.5
No Evidence	F	0

The goal is for grades to reflect understanding, not busywork. I understand that some students have test anxiety or may be having a bad day on the day of the test. Those students can request to be assessed via conference instead of with a test. I'm willing to do anything to make grades fair.

To summarize:

- I grade standards instead of assignments.
- Each standard is evaluated through a quizzes, test, and retest. I take whichever is the highest.
- To earn an A, students must apply their knowledge. You cannot simply recite a memorized concept and earn an A in this class.