

PHYSICS 516

Instructor: Mr. Batey
Email: Jeff.Batey@D214.org
Voicemail: 847.718.5862

Course Description

This course is a laboratory experience with mathematical emphasis. Topics include the study of conservation laws, space and time measurement, optics and waves, electricity, magnetism, energy, forces, and motion.

Course Goals

The main goal of this course is to teach you to think logically in order to become a better problem solver. Whether you believe that you are scientifically-minded or not you will gain much valuable insight into how to reason through situations where challenging problems or unfamiliar data is presented to you. These reasoning abilities will help you on a daily basis even years after finishing physics.

Learning Environment

This is a laboratory based course which means emphasis will be put on hands on learning. There are many times that a lab will be performed in order to introduce a new concept or to fortify an existing concept. With every student having access to an iPad, there are some times where digital activities will be used in order to explore information in greater depth. It is expected that students use iPads for classroom activities while in the classroom.

Curricular Materials

This class does not utilize a physical textbook. All readings and resources will be accessible online through science-online.net. This is our class website and it includes daily objectives and agendas, activities done in class, answer keys, video explanations of problems, references to articles, current events info and more. It is expected that students utilize this site especially in the case of absences or struggles.

Student Conduct

It is expected that students are engaged in the learning process throughout each class. Since physics is a class taken by upperclassmen, it is expected that students hold themselves accountable for their learning. This may mean staying up to date with assigned readings and homework, coming in for additional assistance as needed and notifying the instructor if they know they are going to absent. It goes without saying that the learning environment needs to be a physically safe space, but students need to be aware that emotional safety must be a top priority as well.

Grading

Overall Semester Grade
80% Coursework
20% Final Exam

Coursework Breakdown
70% Tests/Quizzes
30% Labs/Activities/Homework

Infinite Campus

Infinite Campus is updated weekly so that students and parents always know where students stand in the course. Please check grades often.

Grading (Continued)

Incomplete and Late Work

Late work must be completed by Friday of the following week that it was missed in order to receive credit. Incomplete work (including tests and quizzes) due to class cuts is not offered for full credit. Work that is required during class must be completed during class and can not be done at home. Students that consistently miss assignments will have individual conferences scheduled. Late work may not be entered in the grade book until all current assignments have been graded.

Absences

If you are absent for any reason, it is your responsibility to review materials on science-online.net for the day(s) that you are absent. It is also your responsibility to contact the instructor if there is a lab that you need to make up.

Retakes

You may retake up to two quizzes if you earned an unsatisfactory grade provided you are doing what is necessary to be a successful student (see below). Quiz retakes must be completed by Friday of the following week in which they were assigned. You may retake one test at the end of the semester if you have completed all assigned work, have come in for extra help and have truly made an effort to be a successful student throughout the semester. If you are not doing what is necessary to be a successful student to begin with, you may not retake quizzes or tests. No retakes are given for quizzes due to cuts.

Qualities of a Successful Student

This list is by no means exhaustive, but the most successful physics students (and students in general) will display the following traits:

Perseverance

Demonstrate that you are persistent in your learning. We are one of an extremely small group of schools in the country that have a block such as seminar. Come in regularly if you are experiencing difficulty to show your determination. Most importantly, do not give up!

Discipline

Demonstrate that you are a disciplined student by turning in homework and assignments by the assigned due date, asking questions in class, contributing to your lab group, and attending class regularly.

Self-Direction

Demonstrate that you are self-directed by quickly transitioning between classroom activities, going above and beyond to learn more if you complete a classroom assignment early and by limiting distractions - including the abundant distractions associated with iPads, cell phones and other electronic devices.

Empathy

Demonstrate your ability to relate to others and understand how they may feel during and outside of class. It is extraordinarily important to be able to empathize with others no matter how vastly different a person may seem from you. No matter what, choose kindness!