

Physics Course Syllabus

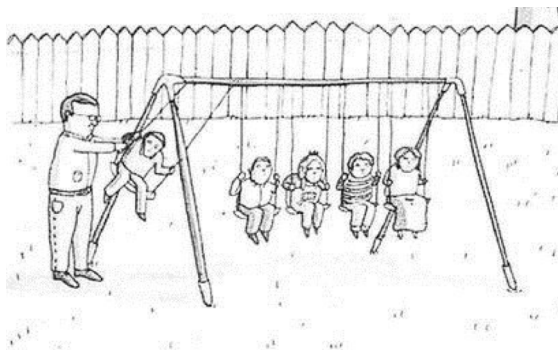
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Why science teachers are not asked to monitor recess.

Course Description

This course is an overview of the major topics of physics. We will answer questions such as:

how do you calculate the stopping distance of a car?

how does a double rainbow form?

how is electricity generated in power plants, solar cells, and wind turbines?

what orbital properties determine the speed and period of a planet?

which muscle group is the most powerful?

Employing laboratory experiments, projects, and mathematical calculations, students will discover ways to describe the world and enrich their thinking and analyzing capacities. The course is based on the physics standards set forth by the South Carolina Department of Education and seeks to develop problem-solving skills that will help students in college and beyond.

Course Outline

1 st Quarter Topics		2 nd Quarter Topics
Kinematics (motion)		Momentum
Projectile Motion		Circular Motion and Gravitation
Newton's Laws, Forces, and Friction		Electric Forces, Circuits, and Magnetism
Work, Power, and Energy		Heat Transfer
		Waves, Sound, Light and Optics

Some units will culminate in a test, and some will culminate in a project.

Grading

Only seniors with a grade of a 90 or above will be able to exempt the final exam. The South Carolina Department of Education has shifted to a 10-point grading scale. An “A” is 90-100, a “B” is 80-89, a “C” is 70-79, and a “D” is 60-69.

The physics teachers are implementing components of Standards Based Grading in accordance with Wando High School’s Personalized Learning efforts. Standards-based grading is defined as “measuring students’ proficiency on well-defined course objectives.” What that means to students is the following:

- Students will be assessed on a proficiency scale of 1-4 on each standard. Achieving a score of “3” for an objective indicates that a student is proficient in that standard. Level 4 work is considered mastery.
- Proficiency on quizzes and tests is achieved by scoring 80% or above. Scoring below 80% requires students to study and re-take the assessment to achieve proficiency.
- The highest grade that students can earn for achieving proficiency in all required standards is a 92. In order to earn a grade higher than a 92, students must do Level 4 work. In an honors course, it is reasonable to expect students to exceed proficiency, and this concept is reflected in the gradebook set-up.
- Level 4 work includes the following: Challenge assignments on the required standards, exploring higher-level standards, independent research, and other work approved by the teacher.

Gradebook Set-Up

Honors	Quarter Grade (for Block Class) Semester Grade (for Skinny Class)	47% Major Assessments, 30% Quizzes/Labs, 15% Daily Work, 8% Level 4 Work
CP	Quarter Grade	47% Major Assessments, 30% Quizzes/Labs, 20% Daily Work, 3% Level 4 Work
Honors/CP	Final Grade	40% First Quarter/Semester, 40% Second Quarter/Semester, 20% Final Exam.

Expectations

1. *Be prepared.* Bring your calculator and binder. Cell phones may not be used as calculators.
2. *Be respectful.* Listen while others are talking, be careful with school equipment, and help to keep our classroom looking as nice as it did on the first day of school.
3. *Be productive.* Be engaged and on task during our time together. Treat time like treasure. Students will be allowed a limited number of bathroom passes during the quarter.

Students are expected to maintain high academic standards. Copying the work of another student on ANY assignment or talking during quizzes and tests will result in grade penalties, including earning a zero.

Absences, Tardies, Dress Code

Students are expected to follow all school and school district policies.

Signatures

I understand that the grading scheme for the physics course incorporates aspects of Standards Based Grading. As a result, the maximum grade a student can earn for meeting the standards in the Honors course is a 92 and the maximum grade a student can earn for meeting the standards in the CP course is a 97. Exceeding the standards is required to earn a higher grade in both courses.

Student: _____ Parent/Guardian: _____