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AP Physics P1 Summer Institute description:

The first time the new AP Physics 1 exam is given is May 2015, replacing the old AP Physics B exam. We AP physics teachers prepared ourselves to start teaching the new course starting around August 2014. We have now taught the course for almost three years, and have the feedback of only two exams to guide us, letting us know if we've been fortunate with our inspired guesswork in our focus, pacing and emphasis.

In addition to the usual goals of a Summer Workshop in AP Physics, we'll emphasize skills that, though not new to most AP Physics teachers, will be exercised more by the new course, such as an increased focus on inquiry-based learning, more writing (claim, evidence, reasoning...), new styles of questions, and an expanded lab component. We'll learn a lot from each other too; our different approaches, lessons learned, and how we'll change for the future.

Class Preparation: Things to bring...

* Calculator.

* Any favorite demonstrations/experiments that you love because they either are simple and useful, or just inspire awe in the students. We will spend the last afternoon sharing such ideas... we don't know the demonstrations you think we all know!

A laptop/ipad would be very useful.

A flash drive would also be useful, but not required.

Overview of AP Physics 1 Summer Institute:

Curriculum framework

Pacing and order of topics

Textbook selection

Student preparation

Teacher preparation, including the audit

Planning the instruction

Student expectations and selection

Tests, quizzes, homework, finals, AP review

Teaching

Instructional strategies

Physics education research

Approaches to problem solving

Technical writing for the student, and how to grade it.

How AP tests are developed and graded

Experiments and demonstrations

Inquiry Labs vs cookbook labs

Lab write-ups, and their grading

Technology and the lab

Designing a lab program

Student creativity and labs

AP Physics 1

Kinematics

Forces

Energy

Momentum

Rotational motion, dynamics, energy and momentum

Waves and sound

Simple steady state circuits