

AP Physics 1 Summer Institute: Short Syllabus.

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