

2009 Syllabus for AP Physics B

July 27 – 31, 2009

Institute Overview

The AP Physics B summer institute is designed to give participants the opportunity to become very familiar with the AP Physics program, and to meet and learn from others who are developing AP Physics programs in their schools. The primary focus of this week-long institute will be to prepare participants to successfully teach the AP Physics B course. Participants should expect to review topics in mechanics, waves, optics, thermodynamics, fluids, electricity, magnetism and modern physics as outlined in the College Board Physics B Course Description Book. Each participant will leave with over 30 years worth of released free response questions from Both B and C level courses, all five released multiple choice tests from each course, and all activities contributed by participants.



Consultant Background

David Brink

I currently teach Pre-AP Physics, AP Physics B, and Calculus at Borger High School in Borger, Texas. Previously I have taught AP Physics C Mechanics and Astronomy. I have been an AP Presenter at 2-day conferences for the past 2 years. I am a Woodrow Wilson Institute Master Teacher from Princeton University, NASA Project NEWMASST Honors Teacher from Kennedy Space Center and Project SPICA Resource Teacher from The Harvard-Smithsonian Center for Astrophysics. I have received the Excellence in Physics Teaching Award from the Texas Section of the American Association of Physics Teachers,

Tandy Technology Scholar Award, Energy Excellence Award from Phillips Petroleum Company, Outstanding High School Teacher Award from Rose-Hullman Institute, Teacher of the Year from West Texas A & M University and served as a panelist for the National Assessment of Educational Progress. I received a B.S. from Texas Christian University with a double major in Physics and Math, and a MEd in Physics and Math Education from West Texas A & M University.

What participants should bring:

Participants should bring a graphing calculator, an electronic version of a favorite lab or activity to share, and a thumb drive and/or laptop computer to hold all the information from the week.

Institute Schedule

Topics may vary according to the needs of the participants.

Monday

- Introduction and goal setting for the week
- AP Redesign and AP Reading
- Graphical Analysis
- Free-Body Diagrams

Tuesday

- Conceptual Understanding
- Effective Problem Solving
- Effective Problems Solving 2
- AP Physics Lab

Wednesday

- Newtonian Mechanics
- Newtonian Mechanics 2
- Fluid Mechanics and Thermal Physics
- AP Physics Lab

Thursday:

- Electrostatics DC Circuits
- Magnetism
- Presentations
- Presentations

Friday

- Modern Physics
- Getting Ready for the AP Exam

Graduate Credit Option

Participants may also earn three graduate education hours for any of the AP Summer Institutes from Washburn University for a reduced tuition rate and the successful completion of an academic assignment.

Additional Information

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