**2020 Advanced Placement® Physics 1**

**About the AP® Physics 1 Summer Institute**
During this four-day APSI, new and experienced teachers alike will become familiar with the newly updated *Course and Exam Description (CED)* in AP Physics 1 for the 2020-2021 academic school year. The updated course curriculum more clearly outlines all required course content and skills. It also defines how that content will be assessed on the exams. The updated CED organizes the AP Physics course into ten units. We’ll dive into material from each unit.

1. Kinematics
2. Dynamics
3. Circular Motion and Gravitation
4. Energy
5. Momentum
6. Simple Harmonic Motion
7. Torque and Rotational Motion
8. Electric Charge and Electric Force
9. DC Circuits
10. Mechanical Waves and Sound

Introduction to the new **Instructional Resources for AP**
- AP Question Bank
- Performance Dashboard and Personal Progress Checks
- Unit Guides

A close look at the new *AP Physics 1 Student Workbook* (with Teachers’ Edition)
This gem presents scaffolded practice tasks for students to help them build the skills necessary for deep conceptual understanding of essential physics content.

A portion of each day will focus on **Inquiry Based Learning** and establishing an AP Physics experience that maximizes student learning. Numerous practical tips will be provided throughout the week on teaching strategies, demonstrations, and resources. **Labs and activities** that engage student learning and promote higher order thinking skills will be performed and discussed. Participants will have opportunities to ask questions and to share their own strategies, activities, labs, demonstrations and approaches with each other.

**Included**
- College Board Workshop Handbook and current resources
- Binder with Curriculum Materials and Activities
- Sample Textbooks
- Breakfast & Lunch

**What to bring:**
- Device to access the internet: laptop, tablet, etc.
- Graphing, handheld calculator
- Highlighters (and/or colored pens/pencils)
- School Calendar for the upcoming year (if available)
- A “best practice” to share (lab/classroom activity/lesson with an electronic copy to share digitally).
- Comfortable clothes and shoes for walking in the heat, layers and an umbrella

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Emphasis

- The AP Physics 1 Program: goals, objectives, content, and resources
- AP Physics 1 course development: syllabi, lesson plans, and assignments
- The AP Physics 1 Exam: development, scoring and student preparation
- Labs and activities that engage student learning and promote higher order thinking skills
- Sharing classroom activities, labs and demonstrations
- Tips on using the Course Framework with its inquiry-based, critical-thinking, problem solving emphasis

Instructor:

Terri McMurray taught in the North Carolina public school system 26 years. She was a reader for the College Board AP Physics Exam from 2001-2009 and a table leader from 2004-2008. She became a College Board consultant in 2004 and has conducted many one-day workshops and AP summer institutes since then. She is a National Board Certified Teacher with a Master of Education degree in physics. She served on the editorial board of The Physics Teacher and was the first to serve as Pre-College Member-At-Large for the North Carolina Section of the American Association of Physics Teachers (NCS-AAPT). In 2006, Terri received the Walter C. Connolly Award for Excellence in Pre-College Teaching presented by the NCS-AAPT.

Terri has received all of the training offered by the College Board for the current AP Physics courses including Building Students’ Reasoning Skills and the latest training for the 2019 – 2020 updated resources. She has used an inquiry approach to teaching throughout her career. Terri can be reached at tmphysics1@gmail.com.

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