

MAR15-2014-020372

Abstract for an Invited Paper
for the MAR15 Meeting of
the American Physical Society

Teaching Physics to Future Presidents

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We present Berkeley's "Physics for Future Presidents" course. Created by Prof. Richard Muller, this is an introductory course aimed at preparing our students to make decisions in a physical, technological world. Organized around large topical areas like "Energy," "Gravity and Force," "Nuclei and Radioactivity," and "Invisible Light," we can cover in some depth the scientific issues involved in large-scale energy production via renewable and non-renewable resources, satellites including capabilities and limitations, nuclear power production including risk and waste, UV exposure including discussion of the ozone layer and cancer risk, etc. Although only a small bit of algebra is used, it's a deeply quantitative course. The class is structured around (1) traditional text readings and homework for basic material (2) demo- and discussion-based lectures and (3) readings and essays based on current articles and events. This third component raises student engagement and improves their reasoning & skeptical skills. It also makes the course challenging for both STEM and non-STEM students, and for future teachers.