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Physics For All – yes, it’s real physics

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Can “all” students learn “real” physics? We want to provide instruction to a wider segment of the population including those students who will not go into STEM (Science, Technology, Engineering, Math) careers. We also want to maintain the integrity of physics, challenge all students, and not compromise the rigor of our courses. Accomplishing this requires a research guided approach to instruction, curriculum and assessment. Physics First and Physics for All have become a success story for thousands of students in urban, suburban, and rural districts. At the same time, the International Physics Olympiad and other competitions have raised the expectation of what the most motivated students can achieve. Many physics educators are exploring ways to set higher goals for our most gifted students while also providing physics instruction to students previously excluded from our physics classes. Many of the same issues that K-12 educators are struggling with are equally important to the college community as colleges try to educate both future physicists and an educated citizenry. Great novels and symphonies are accessible to people of different backgrounds and levels of expertise. We should develop strategies that enable us to share an understanding of physics with all students because everyone deserves an opportunity to reflect on the wondrous workings of our universe.