

Abstract for an Invited Paper
for the PHYSTC12 Meeting of
The American Physical Society

Adapting Physics and Everyday Thinking (PET) to Large Classes: How to Engage Students in the Practice of Science¹
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The next generation science standards [1], currently under development by Achieve and based on the NRC's new Science Framework for K-12 Science Education [2], will combine science content with the practices of science. This coupling highlights the importance of engaging prospective elementary teachers in the practices of science as they learn content during their undergraduate science course experiences. The Physics and Everyday Thinking (PET) curriculum [3] was designed to provide that engagement in discussion and laboratory based classroom settings of 36 or fewer students. However, because of economic and staffing issues, many colleges and universities teach courses populated with prospective elementary teachers in large, lecture-style settings. Over the last several years I have worked with a team of science educators to develop courses for large class settings that still aim to engage students in the practices of science. In this talk I will describe how we have adapted critical features of the original PET curriculum in the design of two new courses: Learning Physical Science (LEPS) and Learning Physics (LEP).

[1] <http://www.nextgenscience.org>

[2] <http://www7.nationalacademies.org>

[3] It's About Time (2007), NY

¹Work supported by NSF grants 0096856, 0717791 and 1044172.