

Abstract Submitted
for the NES17 Meeting of
The American Physical Society

Studio Physics in a Seven-Week Term with Transportable Labs in a Shared Space SOPHIA LEITZMAN¹, JOSEPH DEPAOLO-BOISVERT², Worcester Polytechnic Institute, JEANNE HUBELBANK, None, NANCY BURNHAM³, Worcester Polytechnic Institute — By applying a studio-style learning approach to an Introductory Mechanics course, students' learning and understanding of the material should be greatly enhanced. What makes the installation of studio physics at Worcester Polytechnic Institute (WPI) unique is a studio space that will be shared with other departments and the school following a seven-week class schedule - a relatively short period of time for this method of learning. During the pilot course, techniques such as miniature lectures, problem solving, group laboratory experiments, and clicker questions were all utilized. Labs were tested not only for effectiveness at demonstrating concepts but also for ease of assembly and transportability. The Mechanics Baseline Test was administered at the beginning and end of the course to measure normalized gain. The results was an average class normalized gain of 0.18 and ranged from -0.11 to 0.64. Additionally, small amounts of qualitative student feedback were continuously collected over the duration of the pilot course while larger feedback reports were collected at the middle and end of the term. If the results from this pilot course are promising, studio physics has the potential to become an option for all students at WPI.

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Date submitted: 17 Mar 2017

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