

Abstract Submitted
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Effectiveness of Workshop Style Teaching in Students' Learning of Introductory Electricity and Magnetism NIRAV MEHTA, Trinity University, KELVIN CHENG, Texas Tech University — We have developed an interactive workshop-style course for our introductory calculus-based physics sequence at Trinity University. Lecture is limited to approximately 15 min. at the beginning of class, and the remainder of the 50-min. class is devoted to inquiry-based activities and problem solving. So far, lab is done separately and we have not incorporated the lab component into the workshop model. We use the Brief Electricity and Magnetism Assessment (BEMA) to compare learning gains between the workshop and traditional lecture-based course for the Spring 2012 semester. Both the workshop and lecture courses shared the same inquiry-based lab component that involved pre-labs, prediction-observation and post-lab activities. Our BEMA results indicate statistically significant improvement in overall learning gains compared to the traditional course. We compare our workshop BEMA scores both to traditional lecture scores here at Trinity and to those from other institutions.

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