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Building and Sustaining Success in Pre-calculus Through a Multi-Pronged Approach.

Nationwide, many students are not getting through key Mathematics courses that are required for most STEM majors. At CSUDH, pass rates in Pre-calculus were modest (79.2% of all students, calendar years 2009-2013). In addition, only 74.3% of CSUDH freshmen STEM majors were persisting into their second year. To address these concerns, faculty began an overhaul of Pre-calculus in the fall of 2014. A wide range of changes were made, including standards-based grading and an electronic PDF course pack, and classroom strategies such as active learning, problem solving, frequent assessment and digital tools and resources for students. To date, 86% of 272 students have passed the redesigned course. In this session, we will describe the changes, the outcomes including the impact on Calculus 1, and the current work to sustain the changes and expand the use of the redesigned course to more faculty. (Received August 30, 2016)