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*The Redesign of Precalculus at Clemson University.*

For STEM majors at Clemson, their score on a placement exam determines their path to calculus. Students with lower scores are placed in precalculus, a preparation course for the standard calculus sequence, and must pass this course before entering Calculus I. Before 2011, this precalculus course was run in a lecture/lab design where students attended a lecture 4 times a week and 2 lab sessions a week. Under this model, the precalculus pass rate ranged from 45-55% over the years. In 2011, the online learning system ALEKS was implemented in all precalculus sections. While there are still lecture and lab sessions, the lecture portion is now an asynchronous online component where the students work through the course material at a self-pace. The lab meetings now consist of targeted small group mini-lectures, independent work time, and assessment. By using ALEKS, students' learning paths and instruction have become more personalized while assessment and learning work together in a constant cycle. In the years since implementing this model, an increase in both pass rate (~70%) and retention in the calculus sequence has been seen. This presentation will focus on the implementation of ALEKS in precalculus and the resulting success that has been seen during and after the course. (Received September 20, 2016)