Victoria Brown, Adam Childers, Jan Minton, Hannah Robbins* (robbins@roanoke.edu), Kristin Emrich and David Taylor. Analyzing the effectiveness of two-track calculus with built in algebra review. Preliminary report.

In 2014, our department restructured our first calculus course to address the fact that it has perennially had one of the highest DFW rates at the college. Our solution was to start offering a two semester version of calculus 1 which contains just-in-time algebra review alongside our usual one semester calculus 1 course. We use a placement test, along with SAT math scores and high school GPAs, to place students into the appropriate version. Additionally, we allow students to switch from the one semester version back to the two semester version after their first test.

The goal of our study is to see how successful this new course structure is in helping students succeed in their first and second calculus courses. We collected and analyzed students' grades and placement test scores in the restructured courses, and compared them to similar data from the last year of our old version of calculus. Additionally, we collected grades for those students who continued on into our second calculus course. In this talk, I will give details about implementing this new calculus curriculum and discuss what we learned from our assessment of its effectiveness. (Received September 05, 2018)