

1154-A5-36

Aleksei Talonov* (aleksei.talonov@unlv.edu) and **Viktoriya Savatorova** (vs1445@ccsu.edu). *Transformative Teaching Redesign: Development of High-Impact Strategies to Maximize Learning and Minimize Failure in Introductory Courses of Mathematics.*

We will present teaching and learning practices aimed at improving the success and retention rates in introductory courses of mathematics. In our transformative course redesign we integrate student-centered active learning activities with transparent assignments to increase learning options for students. The key component in our teaching redesign is to state unit objectives for students in the beginning of each course module and to develop a set of in class activities for each of these objectives. Our interactive exercises are based on peer learning and learning by doing and aimed to cultivate students' sense of belonging and build their confidence in problem solving. A coordinated team work of all the instructors is another key feature of our teaching redesign. Systematic data collection has made teaching and learning more effective revealing student's major difficulties in learning and helping to resolve problems as they are discovered. Students have noticed instructor's attention to their success, stopped being passive observers and became active learners. Students indicated that they started to enjoy doing mathematics after they saw that they can succeed. We will provide examples of active learning activities and analysis of the data on student performance. (Received July 06, 2019)