1145-H5-2783 **Theresa A. Jorgensen*** (jorgensen@uta.edu), **W. Ashley Griffith**, **Elizabeth M. Griffith**, **Rebekah Aududdell**, **Christopher Conwell** and **Ji-Eun Kim**. *iGEM²: Integrating geoscience contexts into first year mathematics courses – creating new pathways to success.*

Math courses leading to Calculus are a major obstruction to success for alarming numbers of STEM-intended majors. Our project goals are to (1) improve success of intended STEM majors in mathematics courses that lead to Calculus and (2) introduce first year students to the geosciences, increasing the number and diversity of students who choose a geoscience major. We are modifying the curriculum of College Algebra by integrating the geoscience research of our faculty. Weekly lab meetings in College Algebra incorporate a video presentation by geoscience faculty describing how the mathematical skill the students are learning is essential for his/her scientific research. Student exercises are being cast in the context of that research, followed by problem-solving activities that synthesize and apply mathematical concepts with problems related to geoscience content. Pre- and post-course surveys assess student interest and self-efficacy in science and math as well as career perceptions of geoscience and related sciences. We present baseline survey data and initial results of a pilot study in which we recast exercises on logarithmic and exponential functions in the context of atmospheric carbon dioxide concentrations and ocean acidification. (Received September 25, 2018)