1135-K5-535 **Nicholas Long*** (longne@sfasu.edu) and **Jeremy Becnel**. *Multivariable Calculus in Virtual Reality.*

We created an app that uses a Google Cardboard viewer to allow the user to visualize the concepts of multivariable calculus in a virtual reality setting. The user can specify their own objects for visualization as well go through lessons on the geometry and calculus of multivariable functions and the corresponding surfaces. In addition to this, there are interactive demonstrations where the user can further explore the concepts covered in the lessons. The rendering of these elements in a virtual environment is important since that allows the user to see the depth of these mathematical objects and helps the user to see the multiple facets at play in the study of these mathematics topics. We have also paired these lessons with writing assignments to assess their effectiveness in furthering student understanding of the geometric ideas. (Received September 07, 2017)