1116-K1-1170 **Emma Smith Zbarsky*** (smithzbarskye@wit.edu). *Bringing current events to life: modeling the 2014 Ebola outbreak in Engineering Calculus I.*

Our first year engineering calculus sequence endeavors to instill in our students an understanding of mathematical concepts and their applications to the greater world. During the fall of 2014, I chose to develop my students' familiarity with spreadsheets, numerical derivatives, basic integrals and modeling by having them use current data on the Ebola outbreak in five countries in West Africa. They computed first and second derivatives of the number of deaths in each country with respect to time, created a simple model fitting the observed second derivative and then integrated their model back up using known initial conditions to create a predictive model for the number of deaths that would occur in coming months. They were graded, luckily for them, on their correct use of the modeling process rather than the accuracy of their model as many students predicted that the entire population of the Earth had died as of July. We finished the project by discussing why their models diverged from the data. (Received September 17, 2015)