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**Matthew Cathey\*** (cathey@wofford.edu) and **Joseph Spivey**. *Breaking Free from Traditional Calculus Textbooks with Mathematica*. Preliminary report.

Wofford College, a 4-year liberal arts college with around 1500 students, faced particular challenges in its first-year calculus sequence: the semesters are 13 weeks long, and each class meets for only 2.5 hours each week. Thus, only differential calculus could be covered in the first semester, leaving integral calculus for the second. Students taking only Calculus I weren't seeing the whole picture; students with AP credit for one semester had seen much of our second semester and missed the rigor of the  $\epsilon$ - $\delta$  formulation of limits. So, we redesigned the two-semester curriculum, presenting derivatives and integrals side-by-side in the first semester, and postponing formalities to the second. We created a digital book (using Wolfram CDF) that is appropriate for our new curriculum. This medium allows interactive figures, which illuminate the concepts of change much more effectively than static figures. Also, the cost to students is significantly lower than using traditional course materials, since the text itself is available at no cost. The presenters will talk about the advantages, disadvantages, and challenges involved in the creation of this digital text, along with a brief demonstration. Preliminary results will be shared. (Received September 03, 2015)