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Integrating Calculus with Elementary Mathematics: Activities to Connect.

Current reports call for the better preparation of science, technology, engineering, and mathematics (STEM)K-12 teachers as a way to create a STEM-literate population who can address many of the nation's problems. Conceiving of well-prepared, STEM focused elementary teachers is one way to deal with the on-going demand to increase the STEM pipeline. The presenters will describe a course that has been developed to integrate the concepts of calculus, including derivative, limit, and integral with some of the primary ideas that future elementary teachers need to know to teach their future students. After giving an overview of the two semester course, the presenters will discuss two class activities, one about limit, and one about derivative. The presenters will show work from the students who have been in the second pilot of the course and discuss the importance of making connections between different fields of mathematics and developing deep understanding for the future teachers of our children. (Received September 25, 2012)