1086-VB-1011   **David Dwyer** (dd4@evansville.edu), 1800 Lincoln Ave, Evansville, IN 47722, **Mark Gruenwald** (mg3@evansville.edu), 1800 Lincoln Ave, Evansville, IN 47722, **Michael Axtell** (axte2004@stthomas.edu), 2115 Summit Ave, St. Paul, MN 55105, **Nicholas Baeth** (baeth@ucmo.edu), PO Box 800, Warrensburg, MO 64093, **Kenneth Luther** (ken.luther@valpo.edu), 1700 Chapel Dr, Valparaiso, IN 46383, and **Joe Stickles*** (jstickles@millikin.edu), 1184 W Main St, Decatur, IL 62522. *Resequencing Calculus: An Early Multivariate Approach.*

The Resequencing Calculus project is redesigning the calculus sequence, ordering topics so that material prerequisite for upper-level STEM courses is front-loaded into the first two semesters and so that there is a natural progression of difficulty throughout the 3-course sequence. This is done by introducing multivariate calculus in Calculus 2 and moving infinite series to Calculus 3. As a result, Calculus 1 and 2 form a strong 2-course sequence for students in the life sciences, economics, and chemistry, all of whom are likely to encounter multivariable models in later courses. Moreover, students successful in Calculus 2 may enter directly into not only Calculus 3, but also differential equations, linear algebra, or calculus-based probability. The restructuring eases time pressure in Calculus 3, thus facilitating a thorough treatment of vector calculus through Stokes' Theorem and the Divergence Theorem while maintaining a rigorous treatment of the material. We will discuss the progress and assessment of the project to date, future plans, and various approaches for dealing with multiple challenges, including those posed by course transfers and AP credit. This project is supported by NSF Grants DUE 1225566 and 0836676. Details can be found at http://www.resequencingcalculus.com. (Received September 17, 2012)