1077-VC-1130 **Mark E Gruenwald** (mg3@evansville.edu), Department of Mathematics, University of Evansville, 1800 Lincoln Avenue, Evansville, IN 47722, and **David J Dwyer*** (dd4@evansville.edu), Department of Mathematics, University of Evansville, 1800 Lincoln Avenue, Evansville, IN 47722. *Resequencing Calculus: An Early Multivariate Approach.* Preliminary report.

The presenters will describe the development and implementation of a reformulated three-semester calculus sequence at the University of Evansville, constructed so that the first two semesters constitute an appropriate two-course sequence for students in the life sciences and certain other STEM disciplines. To accomplish this, the sequence and text (under development) introduce matrices and multivariate calculus in Calculus 2 and postpone infinite series until Calculus 3. Because there is a net reduction in the required content in Calculus 3, instructors are able to complete vector calculus through Stokes Theorem. As a consequence of this and the deferral of series, the difficulty level rises through the sequence, instead of peaking at Calculus 2. Moreover, the early treatment of multivariate calculus enables students who complete Calculus 2 to enter directly into courses in differential equations, calculus-based probability, or linear algebra. The presenters will discuss their approaches for dealing with multiple challenges, including those posed by course transfers and AP credit. This project is supported by NSF DUE CCLI grant #0836676. Details can be found at http://www.resequencingcalculus.com. (Received September 16, 2011)