

1096-K5-2616      **Daniel T Kaplan\*** ([kaplan@macalester.edu](mailto:kaplan@macalester.edu)), Mathematics, Statistics, and Comp. Sci.,  
Macalester College, 1600 Grand Ave., Saint Paul, MN 55105. *Modeling Calculus.*

At Macalester, we've reinvented our calculus sequence around modeling. In short, we've asked what calculus concepts and techniques are most important for constructing and interpreting models. The answers involve some of the traditional topics (derivatives, integrals but not elaborate techniques for doing these algebraically), approximation to data, linear algebra, and differential equations: topics that come directly from the MAA CRAFTY reports. Recognizing that most students take at most one semester of calculus, we organize these topics in a way that can be effectively handled in one semester. In addition to presenting the first-semester course topics and a complete set of course materials and (free) software, I'll describe how the creation of this first-semester calculus course has freed us to redesign the follow-up courses, both in calculus and statistics. (Received September 17, 2013)