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Brian Birgen (brian.birgen@wartburg.edu), 100 Wartburg Blvd., Waverly, IA 50677. *21st Century Calculus Reform: Don't Just Paint the Walls and Rearrange the Furniture.*

Even with earlier Reform efforts, Calculus content has stayed constant since the space race. It is the first (and often only) course for our best and brightest students. The curriculum is designed to satisfy the requirements of our Engineering majors. It is dreadfully inappropriate for almost all other students in the class, but what can be done? Applied Calculus followed by Foundational Calculus is our answer. First, engage all students in Calculus concepts using modeling to teach through complex, relevant problems. Once students are warmed up to college-level math and engaged in modeling, they take a semester of Calculus techniques. Or, they continue in a different course of study having a deeper understanding of the value and links between Calculus and tough ideas from within their discipline. In this presentation, we will address our history with Calculus Reform at Michigan and our work with students at a small, liberal-arts college. We will then explain the genesis and implementation of our Transformation. Time will be spent explaining the nuts and bolts, including software, classroom techniques, and textbooks and audience members will be given syllabi and links to relevant material. We will follow up with some preliminary assessment results as well as future plans. (Received August 12, 2010)