

1106-N1-2676

**Theresa A. Jorgensen\*** (jorgensen@uta.edu). *Engaged Calculus - Building Community-Centered Inquiry into a First Semester Calculus Course*. Preliminary report.

We describe the implementation of Engaged Calculus at the University of Texas at Arlington. In this section of Calculus I, populated by primarily first-time, full-time freshmen, students developed and explored research questions that they could investigate utilizing the mathematical tools of calculus which they were simultaneously learning in the course. Their research questions were all based in issues they chose related to their university community, thus requiring them to become more fully engaged as UT Arlington Mavericks – for example, one group modeled the laundry machine availability in the dorms on campus to predict the best times to do laundry. These research projects, completed in groups of 4 or 5 students, spanned the entire semester, and culminated with written reports and poster presentations. We describe both the structure of the course including the timeline for the projects, the supports that were provided as the students collaboratively developed their research questions, and how this focus on mathematical inquiry influenced the student outcomes in terms of their calculus skills and understanding, and their attitudes about how real-world problems can be better understood using mathematics. (Received September 16, 2014)