Calculus I Labs: Are They Integral to Calculus Instruction?

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2:00 pm-3:00pm
April 18, 2014
Derrick 237

Abstract: Currently, there is a high political and economic demand for students graduating with Science Technology Engineering and Mathematics (STEM) degrees. Unfortunately, STEM fields have poor retention rates with a large percentage of students changing majors in the first year of study. Roadblock courses, such as Calculus I, partially contribute to attrition rates. Current research supports the idea that recitation sessions (or labs) led by teaching assistants (TAs) can positively impact student retention rates.

This study investigates the role of labs in Calculus I instruction. Data about what occurs in calculus labs and the purpose of these labs was gathered through observation and interviews with a current instructor, their TA, and their students. Preliminary findings and their implications for increasing student retention rates will be presented and discussed.