Spring Colloquium Series

Promising Interventions for Broadening Participation in STEM

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Abstract:

There is a national need to increase the number of graduates in STEM fields, and persistence is particularly problematic for women and underrepresented minorities. Research in STEM education, however, indicates promising mechanisms to promote broader participation. At SDSU this year, we started implementing reforms to the Calculus sequence as part of lessons learned from the national study on Characteristics of Successful Programs in College Calculus. Strategies for our mathematics classes include active learning in breakout sessions, targeted applications, and interventions that address students' self-efficacy and sense of belonging.

I am co-PI of a new NSF study, Inspiring Women to Thrive in STEM, that is investigating how peer role models can reduce stereotype threat and increase women's persistence in the calculus sequence. For this study, peer role models visited half of the Calculus breakout sections to present applications of Calculus. Preliminary results provide evidence that exposure to a female peer role model may improve women's mathematics experiences. I will also share what we have learned in our selection of role models and how research informed our choice of applications.

Thursday, April 28, 12:05 - 12:50pm in 3-1639