

You are cordially invited to attend the
MSU Mathematics Education Colloquium



Presented by:
Professor Luis A. Leyva

Vanderbilt University

Tuesday,
November 7, 2017

1:15 – 2:45 p.m.
252 Erickson Hall
MSU

The blending of academic and social support through apoyo and consejos in the mathematical success of three undergraduate Latinx engineering students

Analyses of academic success among Latinxs in undergraduate STEM education have shed light on gendered disparities between Latinx women and Latinx men. In the United States, Latinx women have higher grade point averages and degree completion rates than Latinx men even though they also report lower levels of confidence. Despite the masculinization of engineering and mathematics spaces perpetuated through women's underrepresentation and norms of engagement, Latinx women earn over half of science and engineering degrees conferred to their racial group. With undergraduate mathematics serving as a gatekeeper for advanced STEM coursework among historically marginalized populations, qualitative analyses of Latinx undergraduate men's experiences of mathematical success can illuminate ways to inform more socially affirming STEM postsecondary educational opportunities for them. This presentation shares findings from a phenomenological study of mathematical success as a socially exclusionary experience among three Latinx men pursuing engineering majors at a large predominantly white, four-year University. A cross-case analysis of the three men's mathematics experiences documented using multiple data sources reveals how academically and socially supportive opportunities, likened to apoyo (moral support) and consejos (narratives of advice) from Latinx culture, shaped their high school and undergraduate mathematical success. Implications are raised to inform change in mathematics education and STEM support programs to better meet Latinx men's academic and social needs across the K-16 STEM pipeline.

Dr. Luis A. Leyva is an Assistant Professor of Mathematics Education at Vanderbilt University- Peabody College of Education and Human Development. His research rests at intersections of mathematics education, gender studies, and higher education. Using intersectionality theory from Black feminist thought, Leyva's research foregrounds the voices and lived experiences of marginalized undergraduate students to understand their strategies in navigating the socially exclusionary spaces of mathematics-intensive STEM domains (e.g., computer science, engineering, mathematics) as well as developing positive academic identities at intersections of their gender, race, sexuality, and other social identities. His work has been published in the *Journal for Research in Mathematics Education*, *The Journal of Mathematics Behavior*, and *Journal of Urban Mathematics Education*. He was a past recipient of the National Academy of Education/Spencer Foundation Dissertation Fellowship and currently serves as Principal Investigator on a research project entitled *Challenging, Operationalizing, and Undergraduate Racialized and Gendered Events (COURAGE) in Undergraduate Mathematics* funded by the National Science Foundation. Leyva received a B.A. degree in mathematics as well as Ed.M and Ph.D. degrees in mathematics education from Rutgers University.

The Program in Mathematics Education sponsors this event.