



**Engineering and Science Education Seminar
Friday, March 27, 2009, 9:00 – 10:00 am
422 Rhodes**

**The Relations of Ethnicity to Female Engineering Students' Educational Experiences
and College and Career Plans in an Ethnically Diverse Learning Environment**

**Dr. Julie Trenor
Clemson University**

Abstract

This presentation describes a mixed-methods study employing a social cognitive theoretical framework that emphasizes the interplay of person factors, environment and behavior to explore the educational experiences of female students in an ethnically diverse learning environment. Specifically, we investigate the relations of ethnicity to female students' perceptions and experiences related to engineering, as well their selection of and persistence in undergraduate engineering majors. An ethnically diverse sample of female engineering undergraduates at an urban research university completed an online survey ($N = 160$) and participated in semi-structured interviews ($N = 37$). Results revealed that participants of all ethnicities perceived strong institutional and peer supports in this diverse learning environment. Additionally, differences in participants' perceived barriers for achieving engineering educational and career plans were found based on ethnicity and parental level of education.

Presenter Biographical Sketch

Julie Martin Trenor. Ph.D. is an assistant professor of Engineering and Science Education at Clemson University. She holds a Ph.D. in Materials Science and Engineering from Virginia Tech and a bachelor's degree in the same field from North Carolina State University. Her research interests focus on social factors affecting the recruitment, retention, and career development of under-represented students in engineering. Prior to her appointment at Clemson, Dr. Trenor served as the Director of Undergraduate Student Recruitment and Retention for the Cullen College of Engineering at the University of Houston (UH), where she was the founding director of the award winning women-in-engineering program, WELCOME. At UH, she was principal investigator for NSF Research Experiences for Teachers and Research Experiences for Undergraduates programs. She is currently serving the first of a three year term as President-Elect, President, and Past President of WEPAN, Women in Engineering ProActive Network.

*This seminar series is cosponsored by the
Virginia Tech Department of Engineering Education
Clemson University Department of Engineering Science Education
South East Alliance for Graduate Education and the Professoriate*