



Engineering and Science Education Seminar
Friday, November 14, 2008, 3:30 – 4:30 pm
422 Rhodes Engineering Research Center

**An Exploration of Expert Teaching and Student Learning
in Capstone Experiences:
The Development of a Multi-Year Mixed Methods Research Study**

Dr. Marie C. Paretti
Virginia Tech

This seminar will discuss the development of a multi-year, mixed methods research study in design education. It will begin with a discussion of the presenter's prior studies on communication teaching and learning in design courses, with an emphasis on the role of situated cognition and activity theory in project-based learning environments. This research will highlight both the role of communication in design education and the parallels between communication learning and design learning. Drawing on current research in both design education and teacher expertise, the talk will then describe the need for and development of core research questions, the selection and refinement of research methods, and the expected findings. It will conclude with a discussion of the implications of this work for both classroom practice and future research.

Presenter Biography

Marie C. Paretti, Ph.D., is an Assistant Professor in the Department of Engineering Education at Virginia Tech. Her research interests include communication teaching and learning, the development of professional skills and identities in engineering students, design education in engineering, and gender in engineering. She is the Co-Director of the Virginia Tech Engineering Communications Center and the Director of the MSE/ESM Engineering Communications Program. She obtained a B.S. in Chemical Engineering from Virginia Tech, an M.A. in English from Virginia Tech, and Ph.D. in English from the University of Wisconsin-Madison.

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