

Wednesday, April 3, 2024 | 103 Churchill Hall | 12:00 PM

Hosted by the Department of Chemical Engineering

**Distinguished Seminar Speaker**

***Professional Organizations and Social Responsibility  
in Chemical Engineering Education***

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**Abstract:** Professional organizations (POs) are established communities that significantly influence the competencies and values of engineers, but the impact of their interaction with academia on undergraduate education is not fully understood. This study addresses this gap by exploring how engineering faculty in POs strategically incorporate social responsibility into their teaching. Relying on Paulo Freire's critical consciousness and the Transformational Agency framework, it examines faculty reflections on societal and power dynamics for curriculum change.

Conducted over eight months, the study focuses on a Community of Practice (CoP) within the American Institute of Chemical Engineering's Education Division, engaging faculty from multiple institutions. We employed qualitative methods, analyzing interview data through thematic analysis with In-Vivo and Axial coding. Preliminary results highlight how the CoP influences faculty's reflective practices and understanding of societal structures, suggesting it enhances educators' critical awareness and ability to integrate social responsibility into their teaching.

The findings deepen our understanding of POs' role in evolving engineering education. They showcase how educators' involvement in POs can shape socially responsible engineers, addressing the complex societal roles engineers face. This seminar aims to inspire educators with strategies for creating transformative learning environments.

**Biography:** Dr. Rivera-Jiménez is an Assistant Professor in the Department of Engineering Education at the University of Florida and is affiliated with the Department of Chemical Engineering and the Institute of Higher Education. Her research group focuses on community-driven methods to improve practices and policies that enhance the professional formation of engineers and impact the success of diverse engineering communities, including faculty, undergraduate and graduate students, and transfer students. Current projects include faculty support via professional societies, student motivation and emotions in blended learning, and studying diverse transfer student success within organizational contexts.

Additionally, she hosts "The Engineering Professor Speaks Education Podcast," a bilingual series exploring the nuances of being an effective engineering educator. Her most recent accolades include the AIChE IDEAL Star Award (2021), the AIChE Education Division Service Award (2022), and the ASEE Education Research Methods Apprentice Faculty Grantee Award (2023).