COLLEGE OF
ENGINEERING, COMPUTER SCIENCE, & TECHNOLOGY

Seminar in Interdisciplinary STEM Research

February 9, 2024 – Friday, 11:00-11:50 AM

Location: ET A227

HOSTED BY CREST CATSUS

Dr. Corin (Corey) Bowen

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Bio: Corin (Corey) Bowen is an Assistant Professor of Engineering Education, housed in the Department of Civil Engineering at California State University - Los Angeles. Her engineering education research focuses on structural oppression in engineering systems, organizing for equitable change, and developing an agenda of Engineering for the Common Good. She teaches structural mechanics and sociotechnical topics in engineering education and practice. Corey conferred her Ph.D. in aerospace engineering from the University of Michigan - Ann Arbor in April 2021; her thesis included both technical and educational research. She also holds an M.S.E. in aerospace engineering from the University of Michigan - Ann Arbor and a B.S.E. in civil engineering from Case Western Reserve University, both in the areas of structural engineering and solid mechanics.

Transitioning from Quantitative to Critical Quantitative Educational Research

Abstract: The field of engineering is collectively grappling with the problem of disproportionate underrepresentation of women and non-binary people and People of Color, both within educational programs and within industry. Additionally, building on the theoretical foundation of critical theory, people from working class backgrounds are also marginalized, especially in prestigious academic programs. In this talk, I will describe one study that seeks to examine how systemically oppressed identities affect outcomes for an undergraduate student population in a research-intensive aerospace engineering department. I evaluate representation rates and the effects of student identity on measured educational outcomes using critical quantitative methodology. The results offer insights into how systems of oppression are perpetuated within aerospace academia and what specific goals must retain our focus as we build collectively toward systemic change.



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