## CARNEGIE MELLON UNIVERSITY BME 2025 FALL SEMINAR SERIES



Why Ethics in BME? Why Curiosity in BME? Why now?



## PRESENTED BY

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## **SCHEDULE**

Doherty Hall (DH) 2315

Thursday October 2, 2025 (9:30-10:30 AM)

Biomedical engineering is uniquely situated at the intersection of human health, emerging technologies, and complex social systems. As innovations in human genome editing, brain-computer interfaces, and Al-driven medicine accelerate, so too do the ethical dilemmas that define what responsible innovation must look like. In my talk, I argue that the future of biomedical engineering depends not only on what our students know, but on who they are becoming as engineers and citizens.

Drawing from ongoing research and curriculum design at Duke Biomedical Engineering, I will explore how integrating "Ethics Everywhere" in the BME curriculum, from biotechnology design and biomaterials to mathematical modeling and medical instrumentation, supports students in developing character traits such as intellectual humility and curiosity. I will share data on how BME students perceive these virtues as integral to grappling with the ambiguity, uncertainty, and social responsibility inherent in their field. Finally, I will make the case that character education should not be peripheral, but central, to engineering education — especially if we hope to prepare students for the moral complexity of the biomedical technologies reshaping our world.