Talk abstract

Mechanical Engineering education balances breadth and depth: foundational topics in engineering sciences with applications through a mechanical engineering design process. With perspectives from the learning sciences, engineering education research, and design research, this talk will introduce an evolving notion of “Tinkering to Learn” that can be applied across learning experiences. Relevant research studies on physical prototyping, “Making” in the wild, and learning trajectories of student learners will be presented. Implications for teaching and learning including the role of product-based learning and pedagogical content knowledge will be discussed.