



Biology Seminar

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Bridging the Gap: Enactive Mastery for Authentic Biology Education

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The field of biology is witnessing unprecedented innovation, driven by major advancements in technologies like next-generation sequencing, gene editing, and drones. These breakthroughs are crucial for addressing pressing issues in human health and the environment.

However, despite this progress, there is a growing disconnect among students in higher education. Many perceive traditional higher education as lacking relevance, creating an existential gap. And rightly so.

Bridging this gap is a crucial aspect for defining modern student success in biology. Students must authentically engage and develop their identity as biologists.

To address this, I have developed and implemented a series of enactive mastery approaches. My approaches center on crafting learning objectives, themes, skills, and labs that are truly authentic to modern science, and are implemented with equity and inclusion. In my teaching, it is essential that students engage in science in ways that drive their curiosity towards the numerous paths in science. For example, my students engage in the deliberate practice of science communication via case studies spanning healthcare, scientific, and legislative settings.

I will also address the equitable assessment and scaling of these enactive mastery techniques and discuss evidence-based approaches to support student success. My hope is that these strategies will help bridge the current gap, thereby empowering a diverse generation of biologists to address urgent and complex issues like climate change and emerging infectious diseases.

Seminar Speaker Host: Jennifer Ruesink

