Dr. Sarah L. Eddy

**Biography:**

Dr. Sarah L. Eddy is an Assistant Professor in Biology and the STEM Transformation Institute at Florida International University. She received a B.S. in Biological Sciences from Purdue University and a Ph.D. in Zoology at Oregon State University. Sarah completed a postdoctoral scholarship in biology education at the University of Washington. Trained as a behavioral ecologist, Sarah has shifted from studying behavior in a field setting to behavior in college classrooms. Her research focuses on understanding how college instructors can contribute to the goal of equal participation of historically underrepresented groups in science careers, specifically by documenting current disparities in student experiences and working with faculty to deploy classroom interventions to addressing these. In addition to scholarly publications, Sarah’s work has been featured in the New York Times, The Atlantic, Science, Inside Higher Ed, and Insight into Diversity.

**Talk title:** Does how we teach matter? The evidence behind evidence-based teaching

All of us are being told to change how we teach, but what is the evidence behind these calls? In this talk, I will explore the types of data that guide teaching reform and describe two attempts at more rigorous methods: (1) a meta-analysis conducted on studies of teaching in hundreds of STEM classrooms and (2) a series of replication studies across institution types for one active learning strategy, increased structure. In both studies, student-centered teaching methods increase student exam performance and decrease failure rates over traditional lecture.

**Workshop title:** Breaking down active learning: Simple steps to an engaged classroom

In this workshop, participants will explore concrete evidence-based strategies they can employ to build a classroom where students are engaged in learning and practicing the content. Among other aspects, these strategies address quality of practice, logic development, accountability, and apprehension reduction.