Division of Biological Sciences Seminar Program presents:

The Science of Teaching:
Evidence-Based approaches in Biology Education

Bringing Authentic Science to the Classroom: Teaching Modeling, Data Interpretation, and Experimental Design

Dr. Molly Bolger
University of Arizona

Monday, December 10, NSB Auditorium
10:00 AM – 11:00 AM
Light refreshments will be served

After the talk, please join us for a discussion "Ideas for Engaging Your Students in Building Explanations and Models" (11AM NSB Auditorium)

Abstract: Scientists construct models of natural phenomena and refine these models through experimentation and hypothesis testing. Expert models are typically dynamic, detailed and full of causal connections; they are highly productive tools for explaining and making predictions about the biological world. In the next seminar of the “Science of Teaching” series, Dr. Molly Bolger will tell us about two of her innovative curricular designs in which students use models to develop a deeper understanding of data from scientific papers (TRIM - Teaching Real-data Interpretation with Models) or construct their own models to explain phenomena and conduct experiments to test and refine these models (AIM-BIO, Authentic Inquiry through Modeling in Biology). She will show that these curricula allow undergraduate students to productively engage in authentic scientific practices and describe the impact this has on students' development as scientists.

Hosted by: Ella Tour (etour@ucsd.edu)