

# DESIGNING CHEMISTRY ASSESSMENTS WITH MULTIPLE REPRESENTATIONS

## *Virtual Seminar*

**Monday**

**February 13, 2023**

**3:00 – 4:00 p.m.**

**Online via Zoom**

Meeting ID:  
989 8522 4630

Passcode:  
139791

Learning in STEM courses requires students to become fluent in the symbolic language of the particular discipline.

Developing expertise, however, requires that students move beyond manipulating symbols to creating explanations using particulate models of matter for observations in the laboratory. Failure to accurately interpret and connect these multiple representations of matter creates challenges for students when learning. Our research group designs measurement tools to advance our understanding of how students understand and interpret representations for a variety of core concepts. Findings regarding students' reasoning with multiple representations and the implications for assessment will be presented using examples from multiple chemistry courses.

**Stacey Lowery Bretz, Ph.D.**

University Distinguished Professor of Chemistry  
Department of Chemistry & Biochemistry  
Miami University

