

CRMSE Distinguished Lecturer

# Melanie Cooper

Lappan-Phillips Professor of Science Education

Department of Chemistry

Michigan State University

November 12th, 4 to 5:30pm PST

## *Evidence-Based Approaches to Curriculum Reform and Assessment*

There is a growing body of work from the learning sciences providing us with insights into how people learn; and from Discipline Based Education Research (DBER) we know what discipline-specific difficulties students face. However, it is quite surprising that relatively little of this understanding has made its way into the design of science and engineering curricula offered at most colleges and universities.

This presentation will focus on the need for evidence-based curriculum transformations, the research findings that can guide them and how we might assess the results of these transformations. An approach to systemic reform that focuses on core ideas, scientific practices and cross-cutting concepts, will be discussed. Examples of such curriculum reform efforts "Chemistry, Life, the Universe and Everything" (CLUE) and the subsequent organic chemistry version (OCLUE), will be presented, along with the evidence to support such transformations.

### Registration for zoom link:

<https://forms.gle/vSSd2CvWGY9ZZebZ6>

Questions: [crmse@sdsu.edu](mailto:crmse@sdsu.edu)

