



IUPUI
STEM EDUCATION
INNOVATION AND RESEARCH INSTITUTE

SEIRI with Chemistry and Chemical Biology

Wednesday, October 24th, 2018, 4:10 pm - 5:30 pm
IUPUI Campus, LD 010



Diane M. Bunce

Professor Emerita
Department of Chemistry
The Catholic University of America
Washington, DC

Investigating Classroom Myths through Research on Teaching and Learning

Myths arise as a way to explain the reality we experience. In the teaching of chemistry, two myths that exist are concerned with how long students can pay attention in lecture or why C students don't succeed at a higher level.

As scientists we know that the best way to explain something is through investigation. The same is true with understanding student learning and the associated student behaviors that we see in undergraduate chemistry courses. This talk will present research we have published in the learning of chemistry that will challenge the prevailing myths of why students experience difficulty in undergraduate chemistry courses including how long they can pay attention in lecture and what we can do to influence their attention span as well as looking at how C students study and subsequently solve problems that result in uneven success in chemistry.

Diane Bunce received a B.S. degree in chemistry from LeMoyne College, a masters of arts in science teaching from Cornell University and a PhD in chemical education from the University of Maryland, College Park. She has taught and conducted research at The Catholic University of America for 29 years and at the US Naval Academy as the Kinnear Chair of Physical Science in 2013-14 and 2015-16. She is currently a Professor Emerita from The Catholic University of America. Diane has served as an original author on three of the American Chemical Society's curricula projects (Chem-Com for high school students; Chemistry in Context for college nonscience majors and Chemistry for college chemistry majors). She also served as the founding feature editor for the chemical education research feature of the Journal of Chemical Education and as the editor or co-editor of the three books for the ACS on chemical education research. (Nuts and Bolts of Chemical Education Research, Investigating Classroom Myths through Research on Teaching and Learning, and Tools of Chemistry Education Research). Diane has received several national awards for both her teaching and research including the ACS George C. Pimentel Award for Chemical Education (2012), James Flack Norris Award for Outstanding Achievement in the Teaching of Chemistry (2007) and Helen Free Award for Public Outreach (August 2001). Her research focuses on understanding how students learn and how learning is affected by different teaching pedagogies in chemistry.