



## 2016 CSIEIUM Symposium

**Friday, June 17, 2016**

- 09:00 AM Registration (Atrium)
- 09:30 AM Welcome Address (Rm 1640)
- 09:45 AM Break-out Discussions (various)
- 11:00 AM Report (Plenary) & Introduce Workshops (Rm 1640)
- 12:00 PM Networking Lunch
- 01:00 PM Poster Session over Dessert
- 02:00 PM Concurrent Hands-on Workshops (various)
- 04:00 PM Keynote Address: Prof. Marcy Towns (Purdue University) (Rm 1640)

### Faculty & Student Goals for Undergraduate Chemistry Laboratory

The faculty perspective on the laboratory has been investigated via a mixed methods study to articulate the goals, strategies, and assessments used in undergraduate teaching laboratories. Additionally, we have investigated the student perspective of laboratory with the goal of comparing it to the faculty perspective and improving instruction. Results of our research about the goals of majors and non-majors will be discussed as well as initial forays into improving laboratory instruction.



**There is no fee to attend the CSIEIUM symposium. Please join us for lunch! You are invited to display a chemistry education poster during the noontime session. We ask that you pre-register so that we can arrange for enough food and poster space.**

**Please pre-register by Friday, June 10<sup>th</sup>  
at: <http://goo.gl/forms/lnXaekBOsQ>**

*For more information, including the pre-registration link & directions,  
please see the CSIEIUM website: [sites.lsa.umich.edu/csie-um/](http://sites.lsa.umich.edu/csie-um/)*

## 09:45-10:45 AM Break-out Discussions

In six concurrent break-out sessions, participants will discuss topics related to the themes of the day. Each discussion will be in a different room and will have a local host and notetaker. The notes will be the basis for sharing the discussion during the plenary reporting out.

### Topics for Discussion

1. Can you innovate (in undergraduate labs) without it taking over your life?
2. Can an innovation outlast the innovator?
3. Should lab and lecture always be integrated?
4. As chemistry is increasingly interdisciplinary, what is the role and purpose of the traditional chemistry curriculum?
5. Why do labs exist? What value do they bring? Are there core skills and practices we expect students to learn in undergraduate labs? If so, what?
6. Can meaningful writing be incorporated into the undergraduate chemistry curriculum?

## 11:00 AM-12:00 Report (Plenary)

The break-out groups will reconvene and report back to all in attendance about their discussion: key ideas, emergent questions, potential solutions, good models, etc.

## 02:00-03:45 PM Workshops

The concurrent workshops will highlight innovative work being done across the curriculum at UofM. Each session will feature hands-on activities led by the local innovation teams. An abstract for each workshop is available on the CSIEIUM website (\* denotes facilitators).

- A. Student Collaboration in Experimental Setup and Data Analysis in the Laboratory**  
*Team:* \*Prof. Anne McNeil, \*Michele Nelson, & \*Sameer Phadke
- B. Instructor Guided Research Projects in an Organic Laboratory Course**  
*Team:* \*Casey Dougherty & \*Prof. John Wolfe
- C. Constructing and Using Open-source Data Acquisition Devices**  
*Team:* \*James P. Grinias, Jason T. Whitfield, & Prof. Robert Kennedy
- D. Compute-to-Learn: Designing Interactive, Computer-Based Demonstrations**  
*Team:* \*Alicia Welden, \*Blair Winograd & Prof. Eitan Geva

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*In 2014, the Department of Chemistry launched Chemical Sciences at the Interface of Education (CSIEIUM). It is an internally funded, institutionalized program that creates a sustainable model for engaging faculty in instructional development.*

*Faculty who wish to pursue education projects can form teaching groups of collaborators. And as in research, these partnerships include participants from all levels: undergraduates, graduate students and postdocs.*

*The CSIEIUM structure has expanded dramatically the number and kind of instructional innovations taking place in the department, resulting also in presentations, publications, thesis chapters, Masters in Education degrees, and demonstrated hiring advantages for participants.*

*The annual CSIEIUM Symposium is organized and run by the graduate students and postdocs on the CSIEIUM Organizing Committee.*