



UNIVERSITY OF MINNESOTA
Driven to Discover™

Department of Chemistry

Student Seminar Series

9:45 a.m. Tuesday, February 24, 2015 • 331 Smith Hall

Professor

Marcy Towns

Department of Chemistry
Purdue University

Goals for Undergraduate Chemistry Laboratory

Website:

<http://www.chem.purdue.edu/people/faculty/faculty.asp?itemID=78>

Abstract

We have carried out a program of research focusing on determining faculty and student goals for laboratory. The faculty perspective has been investigated via a mixed methods study to articulate the goals, strategies, and assessments used in undergraduate teaching laboratories. The results have allowed us to discuss faculty goals across the curriculum with an understanding of broader goals such as critical thinking skills and experimental design, and as well as differentiating across the curriculum where faculty place less emphasis on research like experiences and writing skills in general chemistry than other courses in the chemistry curriculum.

In 2012, we began investigating the student perspective of laboratory with the ultimate goal of comparing it to the faculty perspective and improving instruction. Our explorations of the student goals for laboratory via surveys and interviews in general chemistry (majors and non-majors) and in analytical chemistry will be discussed.

Marcy Towns obtained her bachelor's degree in chemistry at Linfield College. Following this, she received her master's degree in chemical education and her doctorate in physical chemistry at Purdue University.



Towns is currently a professor at Purdue University, specializing in chemical education. Work in the Towns' lab focuses primarily on developing and testing the efficacy of these models to help increase student understanding of chemistry concepts, with a particular focus on physical chemistry.

Professor Towns has received many awards in honor of her outstanding teaching, including the Murphy Award and Kelly Award in 2013 and the Society for College Science Teachers Outstanding Undergraduate Science Teacher Award in 2015. She is also a Fellow of the American Chemical Society (ACS) and the American Association for the Advancement of Science. She was recently elected chair of the ACS Chemical Education Division.

Hosts:

Solaire Finkenstaedt-Quinn & Katie Hurley