

**SPRING 2022  
CHEMISTRY  
SEMINAR SERIES**



**DR. JULIETTE  
LANTZ**

*Curriculum in Arts and  
Sciences,  
Drew University,  
Madison, NJ*

**HOST:  
DR. LIOTTA**

**ALL THOSE  
INTERESTED ARE  
WELCOME TO  
ATTEND**

**“Going beyond content knowledge: Aligning classroom activities and assessment to promote skill development”**

**Friday, March 11, 2022, 11:30 AM  
Life Science Center II, Room 130**

**Abstract:** Transferrable skills such as critical thinking, communication, and teamwork are commonly listed as desired outcomes in STEM undergraduate courses and programs. These skills, along with information processing, problem solving, and management are not only useful for students as they enter STEM fields, but they are also critical for students to be successful learners. While the development of these skills is often a general goal for curricula, the cultivation of these skills is seldom explicitly facilitated or assessed in the classroom.

The growth of students' transferable skills is enhanced when instructors create explicit learning goals that include the development of these skills, provide learning experiences that cultivate these skills, and then assess and provide feedback to students on their progress. In active learning environments, transferable skills can be developed and made visible through student assignments and tasks. Evaluating student artifacts and interpersonal interactions for evidence of transferable skills provides a means to incorporate the assessment of these skills into regular classroom practice and gives direct feedback to students on their development. The ELIPSS (Enhancing Learning by Improving Process Skills in STEM) project has developed feedback-focused rubrics that serve as a resource for instructors to assess and support student skill development. Faculty and students from multiple institutions representing multiple STEM disciplines have provided feedback on the utility of these rubrics in a variety of STEM courses. Implementation of the rubrics has been shown to positively impact faculty reflection and student outcomes.

**Biographical sketch:** Professor Juliette Lantz earned a B.S with honors in Chemistry from Loyola University of Chicago and a Ph.D. in analytical chemistry from the University of Wisconsin – Madison. Her research focuses on the development, implementation and assessment of active learning strategies in chemistry, particularly in the areas of cases studies, role-playing laboratories and Process-Oriented Guided Inquiry Learning (POGIL). Lantz was the PI on the NSF-funded project that produced POGIL material for analytical chemistry: *Analytical Chemistry: A Guided Inquiry Approach*. She recently completed a rotation as the Associate Dean of Curriculum in the Arts and Sciences at Drew University, and she currently sits on the POGIL national steering committee. Lantz is a PI on the Enhancing Learning by Improving Process Skills in STEM project (elipss.com), which has facilitated numerous professional development workshops to hundreds of faculty across STEM disciplines on instructional strategies that support and assess transferable skills.

**RUTGERS**  
UNIVERSITY | NEWARK  
Department of Chemistry  
73 Warren Street, Olson Hall  
Newark, New Jersey  
<https://sasn.rutgers.edu/chemistry>