

JULIANA SERAFIN, BETH PAULEY, DONNA LEWIS*, Dept. of Natural Sciences and Mathematics, University of Charleston, Charleston, WV 25304. Creating Chemistry Outcomes and Methods of Assessment: A Proposal.

The curriculum at the University of Charleston (UC) is outcomes-based and is rooted in six Liberal Learning Outcomes (LLOs): Citizenship, Creativity, Critical Thinking, Communications, Ethical Practice, and Inquiry. The LLOs are the skills, knowledge, and dispositions that enable UC graduates to be successful in their careers and beyond. These LLOs are integrated into the academic programs and students are assessed for competency at multiple levels (Foundational, Midlevel, and Advanced). In addition to the University-wide LLOs, UC graduates are also assessed on program-specific outcomes at the three levels.

The Chemistry program has previously used a single rubric to evaluate all program outcomes at all levels. In Fall 2017, the Chemistry program revised the program outcomes as well as the assessment methods. The program outcomes now emphasize the four competencies needed by Chemistry graduates: accumulation of conceptual and specific knowledge, working safely in a laboratory to obtain meaningful results, planning experiments and carrying them out to create new knowledge, and analyzing data and communicating findings. These changes specifically addressed two missing links to the LLOs: Ethical Practice and Citizenship.

A series of twelve assignments spanning the freshman-to-senior curriculum were designed for the program assessments. Four new rubrics were created, and two existing rubrics are being used to assess the new outcomes. The design of these outcomes and assessment tools, current results, and successes and failures are discussed.