

2013 Curriculum Grant Awardee

Dr. Daniel de Lill

College: Charles E. Schmidt College of Science

Department: Chemistry and Biochemistry

Project Description:

Chemistry, as with many other disciplines is a vast field of study that continues to expand as new discoveries are made. Traditionally, students are expected to have general knowledge in the areas of inorganic, organic, physical, and analytical chemistry. At FAU, we also offer advanced coursework in biochemistry, (organic) synthesis, and materials chemistry. My responsibility lies with the inorganic and materials courses. Herein I propose to modify the Inorganic Chemistry (IC) lecture course to move away from the traditional lecture format by incorporating workshops and presentations designed to target QEP SLOs. These SLOs mirror the desired skill-sets desired of BS-Chemistry graduates by the American Chemical Society (ACS; <http://www.acs.org>), yet are difficult to achieve in lecture-only courses. I have used these ACS guidelines while developing the new curriculum map and course plan worksheet. Additionally, there is an online community of professors and students of Inorganic Chemistry known as VIPeR (<http://www.ionicvipr.org>). This resource has nearly 400 posts related to the learning and teaching of IC, 120 of which are devoted to in-class activities. VIPeR was also used to gather preliminary data for this proposal, but the majority of what this site has to offer will take more time to explore in detail. In class presentations and papers based on the chemical literature are assigned (Robinson et al, Journal of Chemical Education 2009; Stoller & Robinson, English for Specific Purposes 2013). IC is often the first, sometimes second 3000 level course students take in the chemistry curriculum after having taken General Chemistry and Organic Chemistry. Both courses are extremely large and are taught in large lecture halls with no practical way to deviate from a lecture-only format. IC was chosen for modification to prepare students for future coursework and/or graduate school.

List of Courses scheduled for Enrichment:

Inorganic Chemistry (CHM 3609)

- a) Proposed Undergraduate Research Level : Skill building
- b) Listed Student Learning Outcomes Targeted: Knowledge and Critical Thinking