

**Project Title:** Instructional modules to help organic chemistry students review prerequisite material, more accurately judge what they know, and correct their own problem solving errors.

**Project Summary** (150 words maximum)

This proposal describes the rationale and development of several learning modules to assist Chemistry 233 students in learning organic chemistry and improving how they study. Prerequisite review modules will aid students in refreshing their fundamental chemistry knowledge. Judgment of learning and knowledge modules will help students make better judgments about what they know and can do and use these judgments for better time management. Error correction modules will help students perceive and learn from problem solving errors. These modules will address several issues in the course, namely the wide range of knowledge of prerequisite concepts, the tendency for students to confuse familiarity with concepts with being able to solve problems on tests, and the lack of realization that errors in problem solving are opportunities to learn. This project will impact 1200-1400 students per year, and will be evaluated based on the module learning outcomes and organic chemistry learning outcomes.