



Project Title: Case-based Learning in Chemistry 211

Project Summary *(150 words maximum)*

Chemistry 211 (Analytical Chemistry), is a second year course that serves ~350 students per year. Analytical Chemistry has a major contribution to the more 'real-life' applications of chemistry such as industrial quality control, clinical analysis, food safety, environmental monitoring and forensic science. We propose to implement case-based activities in these and other application areas in place of traditional lecturing to enhance student engagement and improve learning. Chemistry graduate students will be hired to research and develop applicable cases and help create "case readiness" assessment questions for the course. Undergraduates who have previously performed well in Chem 211 will be hired to test the cases and readiness questions and provide feedback. Integrating case-based learning in this course will help undergraduates develop and enhance skills in areas such as communication, team work, critical thinking, data interpretation, and problem solving.