Chem 361: Analytical Chemistry Laboratory
Course description: Emphasizes instrumental analysis and advanced analytical techniques.
Course Goals
Develop an understanding of the concepts of calibration, quantification and detection
Develop an understanding of the concept of interferences and controls in measurements
Develop an understanding of the role and function of the components of various chemistry equipment/instrumentation
Develop an understanding of the principles behind physical measurements
Develop an understanding and applications of a variety of analytical and separation techniques
Develop an understanding of the relationship between experimental data, correlations and fits to theoretical equations
Develop an understanding of data acquisition, data processing, and interfacing with computers
Develop the ability of appropriate sample preparation for the execution of chemical analysis
Program Goals
Develop the ability to design, conduct and observe chemical experiments and to record and critically analyze data from chemical experiments.
Develop the ability to work competently, independently and safely in a laboratory environment.
Develop the ability to apply error analysis and determine significant figures.
Develop the ability to apply mathematics to chemistry.
Develop competence in problem solving.
Develop the ability to disseminate scientific information orally and in writing.
Develop the ability to use the chemical literature in a critical manner.
Develop the ability to engage in scientific discussions.