

Chemistry 320 : Instrumental Methods of Analysis

This course deals with sample preparation, data analysis, method development, and the theory of operation of modern laboratory instrumentation. Instrumental techniques discussed in lecture and used in the laboratory will include flame atomic absorption spectroscopy, capillary electrophoresis, inductively coupled plasma spectrometry, basic mass spectrometry, scanning electron microscopy with elemental detection, and ion, high pressure, and gas chromatography. Laboratory exercises will concentrate on real world applications of chemical analysis. One Friday afternoon field trip may be required. Three lectures and one three- to four-hour laboratory per week are required.

Credits 4

Prerequisites

Chemistry 251, 252, and 310; or consent of instructor.

Corequisites

Includes a required corequisite lab, Chemistry 320L.