



Course Number Course Name	CHEM 2310L Quantitative and Analytical Chemistry Lab
Credit Value (Breakdown of theory and lab credits)	1 Lab
Catalog Course Description	Laboratory experiments involving instrumentation emphasis on sampling, statistical, measurement, and separation techniques. You will focus on proper documentation and data analysis.
Course Student Learning Outcomes/Objectives /Competencies	(1) prepare histograms and estimate and interpret confidence intervals for a given set of experimental results, (2) to use optical spectroscopy, titrations and least squares regression to measure how much of a given chemical is present in a solution, (3) draw up a recipe for preparing a buffered solution at any specified pH, predict chemical concentrations in and pH of acid/base buffering systems, and (4) isolate individual components from complex samples via chromatography. This course is accompanied by a four-hour laboratory that focuses on implementing the concepts being covered in lecture, developing good analytical technique, developing basic data analysis & reporting skills.
College-Wide Student Learning Outcomes measured (General education courses only)	
Program Student Learning Outcomes measured	1. The Student should be able to analyze and solve problems using a formal critical thinking based on the scientific inquiry.