



Course Number Course Name	ES 201L ENVIRONMENTAL PHYSICAL AND CHEMICAL PROCESSES LAB
Credit Value (Breakdown of theory and lab credits)	1 Laboratory
Catalog Course Description	You will study the basic techniques for chemical analysis of environmental samples including air, water, and soil. You will also learn to use electronic data acquisition systems and further develop your scientific writing skills.
Student Learning Outcomes/Objectives /Competencies of the Course	<ol style="list-style-type: none"> 1. Understand chemical reactions and pathways occurring at the soil-water interface. 2. Knowledge of interfacial phenomena that are important for environmental chemical processes, whether they involve sorption of ions to flocculates during water treatment or soil weathering processes. 3. Literacy in geochemical theory, with emphasis on reactions at the molecular-scale. 4. Familiarity with chemical equilibria and kinetics to quantitatively assess reactivity and chemical speciation in soils and at the particle-water interface.
College-Wide Student Learning Outcomes	<i>This lab will be assessed in conjunction with the associated lecture/theory course which is a co-requisite.</i>