



Course Number Course Name	CHEM 1225L General Chemistry II Lab for STEM Majors
Credit Value (Breakdown of theory and lab credits)	1 Lab
Catalog Course Description	Co-requisite: CHEM 1225. (1, 0T+1L) Meets New Mexico Lower Division General Education Core Curriculum Area III Laboratory Science (NMCCN CHEM 1224 with lecture)
Course Student Learning Outcomes/Objectives /Competencies	<ol style="list-style-type: none"> 1. Demonstrate and apply concepts associated with laboratory safety, including the possible consequences of not adhering to appropriate safety guidelines. 2. Demonstrate the computational skills needed to perform appropriate laboratory-related calculations to include, but not be limited to determining the number of significant figures in numerical value with the correct units, solving problems using values represented in exponential notation, solving dimensional analysis problems, and manipulating mathematical formulas as needed to determine the value of a variable. 3. Perform laboratory observations (both qualitative and quantitative) using sensory experience and appropriate measurement instrumentation (both analog and digital). 4. Prepare solutions with an acceptable accuracy to a known concentration using appropriate glassware. 5. Perform basic laboratory operations related to, but not limited to, gas behavior, colligative properties of solutions, calorimetry, chemical kinetics, chemical equilibria, acid/base titrations, electrochemistry, metal reactivity, and qualitative analyses of ions. 6. Draw conclusions based on data and analyses from laboratory experiments. 7. Present experimental results in laboratory reports of appropriate length, style and depth, or through other modes, as required. 8. Relate laboratory experimental observations, operations, calculations, and findings to theoretical concepts presented in the complementary lecture course. 9. Design experimental procedures to study chemical phenomena.
College-Wide Student Learning Outcomes measured (General education courses only)	<ol style="list-style-type: none"> 1. Critical Thought

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Program Student Learning Outcomes measured	1. The student should be able to communicate effectively using oral and written reports containing technical data.
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