

NORTHERN NEW MEXICO COLLEGE



Course Number Course Name	CHEM 3311 Physical Chemistry
Credit Value (Breakdown of theory and lab credits)	3 Theory
Catalog Course Description	You will study the quantitative principles of chemistry, gases, thermodynamics, quantum systems, equilibrium, kinetics, and spectroscopy.
Course Student Learning Outcomes/Objectives/Competencies	Students in this class will be able to 1) understand the theories of chemical reaction rates 2) predict rate laws from mechanisms or data 3) understand the basic postulates in quantum mechanics and their application in chemical systems 4) perform quantum mechanical calculations for simple systems 5) compute molecular energies, speeds, collision rates and selected transport properties. At the successful completion of the course, you will demonstrate your mastery of the key concepts by successful completion of homework and exams.
College-Wide Student Learning Outcomes measured (General education courses only)	
Program Student Learning Outcomes measured	1. The student should be able to communicate effectively using oral and written reports containing technical data.