



Course Number Course Name	CHEM 311 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.
Student Learning Outcomes/Objectives /Competencies of the Course	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	<ol style="list-style-type: none"> <i>Critical Thought</i> <i>Critical thought will be assessed with an assignment related to chemical reaction rates.</i>