CHEM 3739L - Physical Chemistry 1 Laboratory

Fall 2026 Syllabus, Section 01, CRN 40764,

Credit hours: 1

Instructor

Brian D. Leskiw

Professional Qualifications:
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Blackboard message board.

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Course Description

3739L. Physical Chemistry 1 Laboratory. Quantitative thermodynamic and kinetic measurements of chemical systems. Prereq. or Coreq. CHEM 3739. 1 s.h.

Course Readings

Group	Title	Author	ISBN
Optional	Experiments in Physical Chemistry, 6th ed	C.W. Garland, J.W. Nibler, D.P. Shoemaker	

The course readings are subject to change in the event of extenuating circumstances, research developments, current events, and/or to ensure better learning.

Schedule of Topics and Assignments

Day	Date	Proposed Topic	Due/To Prepare for Class
Tue	8/25		
Tue	9/1	Conceptual Introduction to Experiments in Weeks 3-6.	
Tue	9/8	Gas Thermometry	
Tue	9/15	Heat Capacity Ratios for Gases	
Tue	9/22	Heats of Combustion	
Tue	9/29	Heats of Ionic Reaction	
Tue	10/6		
Tue	10/13	Conceptual Introduction to Experiments in Weeks 9-13.	
Tue	10/20	Partial Molar Volume	
Tue	10/27	Chemical Equilibria in Solution	

Tue	11/3	Vapor Pressure of a Pure Liquid
Tue	11/10	
Tue	11/17	Method of Initial Rates
Tue	11/24	Kinetics Research Paper
Tue	12/1	Kinetics Research Paper
Tue	12/8	

The course schedule, policies, procedures, and assignments in this course are subject to change in the event of extenuating circumstances, by mutual agreement, and/or to ensure better learning.