



## Physical Chemistry Lab

Course Code	Course Num.	Course Name	C.H.	Lec.	Lab.	Tut.	Pre-requisites	Co-requisites
CHM	223	Physical Chemistry Lab	1	0	2	0		CHM 222

### OBJECTIVES:

- To improve the students' knowledge of the laws of classical thermodynamics.
- To recognize the properties of gases, liquids, and solids and their solutions.
- To correlate the kinetic theory to gas laws.

### SYLLABUS:

Lab No.	Topics	Number of Weeks	Contact hours
Lab 01	Safety and Laboratory equipments and measurements and reports	1	2
<b>Gas Laws</b>			
Lab 02	Boyle and Mariette's law (P, V)	1	3
Lab 03	Amontons' law (P,T)	1	3
Lab 04	Gay-Lussac's law (V, T)	1	3
<b>Thermochemistry/ calorimetry</b>			
Lab 05	Boiling point elevation	1	3
Lab 06	Freezing point depression	1	3
Lab 07	Molecular Weight Determination by Freezing Point Depression	1	3
Lab 08	Determining the Molecular Mass of liquid	1	3
Lab 09	Calibration of a calorimeter and Determination of the specific heat capacity of a metal	1	3
	Review	1	3

### TEXTBOOK:

Laboratory Manual supplied by the Department of Chemistry.

