



Code	Subject Title	Cr. Hrs	Semester
CHEM-102	Chemistry Lab-I (Physical Chemistry)	1	I
Year	Discipline		
1	Botany, Zoology, Chemistry-I, II		

1. Determination of percentage composition by surface tension, viscosity and refractive index method.
2. Determination of heat of solution for solids and liquids.
3. Quantitative measurement of colored salt of KMnO_4 , $\text{K}_2\text{Cr}_2\text{O}_7$ in colorimeter.
4. Study of first order reaction:
 - a) Study of hydrolysis of methylacetate
 - b) Measurement of rate constant
5. Measurement of molecular weight by; Depression of freezing point.
6. Determination of transition temperature of $\text{Na}_2\text{SO}_4 \cdot 10 \text{H}_2\text{O}$; $\text{Na}_2\text{CO}_3 \cdot 10 \text{H}_2\text{O}$; $\text{MgSO}_4 \cdot 7 \text{H}_2\text{O}$

Recommended Books:

1. Crocleford H.D., H.W.Biard, F.W. Getzen & J.W. Nowell, "Laboratory Manual of Physical Chemistry", 2nd Ed., John Wiley & Sons London.
2. Das R.C. and B. Behera, "Experimental Physical Chemistry", Tata McGraw Hill Publishing Company Limited.
3. Levitt B.P., "Findlay's Practical Physical Chemistry", 9th Ed., Longman Group Limited.