



Code	Subject Title	Cr. Hrs	Semester
CHEM-202	Chemistry Lab-III (Organic Chemistry)	1	III
Year	Discipline		
2	Botany, Zoology, Chemistry-I, II		

1) **Compound Analysis**

Identification of organic compounds containing only one functional group with special emphasis on compounds containing following functional groups.

-COOH, -OH, C=O, -NH<sub>2</sub>, and -CONH<sub>2</sub>

2) **Basic Experimental techniques used in organic chemistry**

- 1) Filtration
- 2) Simple and fractional distillation
- 3) Solvent extraction
- 4) Sublimation
- 5) Re-crystallization
- 6) Column Chromatography

3) **Estimations (volumetric)**

- 1) Determination of molecular weight of a carboxylic acid.
- 2) Estimation of amide group and glucose.

**Recommended Books:**

1. K.M.Ibne Raza, M.A. Rehman, Abdur Rehman, "Organic Chemistry", The Carvan Book House, Lahore.
2. B.S. Furniss, "Vogel's T.B of Practical Organic Chemistry", Addison Wesley Longman, Inc. 1989.
3. Frederick George Mann and Saunder, "Practical Organic Chemistry", The English Language Book Society, 1960.
4. Daniel R. Palleras, "Experimental Organic Chemistry , John Willey & Sons" Inc., 2000.
5. James A. Moore, "Experimental methods in Organic Chemistry", Holt-Saunders Int., 1983.
6. R.L. Shriner, R.C Fuson, D.V. Curtin and T.C Morrill "The systematic identification of organic compounds, 6th ed. John Willey & sons, 1979.