



Code	Subject Title	Cr. Hrs	Semester
CHEM-310	Applied Chemistry Lab	2	V
Year	Discipline		
3	Chemistry-I, II		

SYLLABUS OUTLINE:**1. Preparations:**

Detergent and cosmetics (Cold cream, shampoo and vanishing cream)

2. Titrimetry:

Estimation of water hardness by complexometry

Estimation of acetic acid contents in the vinegar sample

Determine the acidity of the sulphuric acid and its normality.

Determination of acidity, alkalinity, Free CO₂ in water

Assay of bleaching powder by free chlorine method.

Determine the %age purity of the Commercial sample of sodium chloride.

3. Flamephotometry:

Estimation of Potassium in the tap water.

Estimation of Sodium in the Commercial Sodium Chloride.

Estimation of Calcium in milk.

4. Spectrophotometry:

Determination of the of KMnO₄, K₂Cr₂O₇ and CoCl₄

5. Chromatography:

Separation of mixture of ink by circular paper chromatography.

Separation of mixture of metal ions by paper chromatography.

Coating of TLC plates and separation of mixture of dyes.

Separation of different pigments of plant extract by TLC chromatography.

RECOMMENDED BOOKS:

1. Perfumes Cosmetics and Soaps, W.A. Poucher, Chapman and Hall 7th Ed. (1974).
2. Applied Chemistry Theory and Practice O.P. Vermani & A.K. Narula, Wiley Eastern Limited (1989).
3. T. B. of Quantitative Inorganic Analysis, Vogel's Ed-4th, Longman Group Limited (1978).
4. Practical Statistics for the Analytical Scientist, A Bench Guide, RSC Publishing, LGC Ltd 2009