

COURSE OBJECTIVES AND COURSE OUTCOMES

S. Y. B. Sc. SEMESTER - III

SUBJECT: CHEMISTRY PRACTICAL (USCHP3)

| Sr. No. | Course Objectives | Course Outcomes |
|---------|---|--|
| 1) | To study practical applications of conductometry | Learner will gain hands on experience to use conductometry to verify Ostwald's dilution law and dissociation constant of weak acid |
| 2) | To learn identification and separation of cations | This will enable students to use theory knowledge in practice to detect and separate cations |
| 3) | To expose students to various titration methods | They will learn to estimate total hardness of water and investigate reaction between copper sulphate and sodium hydroxide |
| 4) | To expose students to the preparation and purification of organic compounds | Learner will be able to independently synthesise organic compounds and also learn crystallization technique |
| 5) | To introduce students to various quantitative analytical techniques | Students will learn quantitative determination using gravimetric and colourimetric methods |

S. Y. B. Sc. SEMESTER - IV

SUBJECT: CHEMISTRY PRACTICAL (USCHP4)

| Sr. No. | Course Objectives | Course Outcomes |
|---------|--|---|
| 1) | To study practical applications of potentiometry | Students will learn to determine standard emf and standard free energy change of Danniell cell potentiometrically |
| 2) | To study chemical kinetics. | Learners will be able to compare strengths of different acids by studying rates of ester hydrolysis |
| 3) | To introduce students to inorganic preparations | Students will learn the microscale methods of preparations |
| 4) | To expose students to the qualitative analysis of bifunctional organic compounds | Students will be able to independently characterize solid and liquid organic compounds containing two functional groups |
| 5) | To expose students to modern analytical methods of separation and quantification | They will get practical experience of paper chromatography, conductometry and gravimetry |