**PHC 261: PHARMACEUTICAL ANALYTICAL CHEMISTRY-I (2 + 1)**

Prereq. Chem. 108 or 105 + 106

**Course Description**

The course presents fundamental concepts and applications of volumetric analysis based on acid-base, precipitation, complexation and redox reaction. In addition on introduction to gravimetric analysis is given.

**PHC 261: PRACTICAL**

***Lab. No.***

 ***Acid-base titrations***

***1 & 2 Standardization of N/2 HCl (using primary standard Na2CO3).***

 **Standardization of NaOH.**

 **Determination of boric acid.**

 **Determination of borax.**

 **Determination of mixture of boric acid and borax.**

 **Determination of ammonium chloride (formol titration).**

 **Determination of acetylsalicylic acid (Aspirin).**

 **Assay of ammoniated mercury.**

 **Assay of sodium benzoate.**

 **Assay of oxyphenbutazone tablets.**

***3 & 4 Non-aqueous and diazometric titrations***

 **Standardization of acetous perchloric acid. Determination of Adrenaline.**

 **Determination of glaphenine HCl.**

 **Determination of benzoic acid.**

 **Assay of paracetamol tab.**

 **Assay of sulphaguanidine tab.**

 **Assay of chloramphenicol caps.**

***5 & 6 Precipitimetric and complexometric titrations***

 **Standardization of N/10 AgNO3.**

 **Standardization of N/10 amm. thiocyanate.**

 **Determination of NH4Cl by Volhard's method.**

 **Determination of NH4Cl by Fajans' method.**

 **Mercurimetric determination of chloride.**

 **Mercurimetric determination of I-**

**.**

 **Standardization of M/20 EDTA.**

 **Determination of hardness of water (Ca++ and Mg++).**

 **Determination of Ca. gluconate.**

**Precipitation (chloral hydrate draught).**

**(a) for chloral hydrate.**

**(b) for pot. bromide.**

**Determination of chlorobutol.**

**Determination of zinc oxide.**

***7 Practical examination***

***8 & 9 Redox titrations***

 **Standardization of N/10 KMnO4 solution.**

 **Standardization of N/10 iodine.**

 **Assay of Vit. C tab.**

 **Bromometric determination of Aspirin.**

 **Assay of phenazone powder.**

 **Assay of ferrous gluconate by amm. ceric SO4.**

 **Assay of ferrous gluconate by potassium dichromate.**

 **Assay of ferrous gluconate by KMnO4.**

 **Determination of glycerol.**

***10 & 11 Redox titrations***

 **Determination of hydrogen peroxide.**

 **Determination of formic acid.**

 **Determination of calcium lactate.**

 **Assay of isoniazid tablets.**

 **Determination of iodide (Andrew's method)**

 **Determination of glucose by IO-**

 **(hypoiodite). Determination of phenol.**

 **Prescription: Iodo-salicylic acid.**

**(a) for iodine.**

**(b) for salicylic acid.**

***12 & 13 Gravimetry***

 **Determination of Ca.++**

 **Determination of piperazine.**

***14 Practical exam***