**PHC 213: 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 213: 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***