THEORY: (3 hours per week)

1. GPC: Theory, methods, techniques and applications, Gel electrophoresis, Capillary electrophoresis.
2. Solid state analysis of drug substance including degradation and impurity analysis.
3. Pre formulation analysis.
4. Analysis of solid oral dosage forms, cosmetics and injectables.
5. Compendia testing.
7. Analysis of drugs in biological fluids.
8. Thermal Analysis: Introduction, TGA DTA and DSC theory, instrumentation and thermographs and application.
10. Application of analytical methods of products obtained through genetic engineering:  
   A) HPLC-tryptic mapping, size exclusion, ion exchange amino acid analysis.  
   B) Amino acid sequence analysis.

PRACTICALS: (4 hours per week)

Practical exercises will be based on theory syllabus

BOOKS RECOMMENDED:

1. Trace and Ultra Trace Analysis by HPLC- Ahuja
2. HPLC in Pharmaceutical Analysis [2 volumes] - Szepi
3. Instrumental Methods of Analysis: Willard, Merrit and Dean. (Latest edition)
4. HPLC Analysis of Biological Compounds, Lab. Guide chromatographic Series Vol.2 Hancock and Spparrow