

Course Objectives

Training is aimed at providing in depth knowledge and hands on experience on various analytical techniques to those new to the R&D institute/industry or wish to develop their career further in the relevant QA/ QC area with more strengthened analytical approach.

Contents

- Basics of analytical chemistry
- Qualitative and quantitative analysis : Pre-requisites
- Various sample preparations
- Analytical approaches
 - Gravimetry
 - Volumetry
 - Physico-chemical characterization
(including Petroleum analysis)

- Chromatography/Mass Spectroscopy
(GC, HPLC, GC-MS, LC-MS)
- Spectroscopy (UV-Vis, FTIR,NMR)
- Diffraction and morphology, XRD/XRF
- Analysis using ICP-AES/AAS, TGA, DTG
- Figures of merit, Errors in analysis, validation.