

Lecturers Title

- 1- UV / visible spectroscopy; Sample handling and instrumentation; Characteristic absorption of organic compounds; Rules for calculation of lambda max and application; Application of UV/visible; spectroscopy; Problems and solutions.
- 2- Infra Red spectroscopy (theory and H-bonding effect; Sampling techniques and interpretation of spectra; Characteristic group frequencies of organic compounds; Application of IR spectroscopy; Problems and solutions.
- 3- H1 –Nucleomagnetic Resonance (NMR) and C13-NMR spectroscopy; Introduction, the nature of NMR absorption, chemical shifts and factors affecting them, information obtained from NMR spectra, more complex spin-spin splitting patterns, application of H1-NMR spectroscopy; C13-NMR spectroscopy: introduction and characteristics, DEPT C13- NMR spectroscopy.
- 4- Mass spectroscopy: Introduction and interpreting Mass spectra; interpreting Mass spectra fragmentation patterns, Mass behavior of some common functional groups.
- 5- elemental microanalysis CHNSO