

**Coordinators**

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**Syllabus****References****COURSE OUTLINE**

Introduction to Molecular Absorption Spectroscopy, Theoretical Principles of Absorptions Chromo photometric Contributions, Instrumentation, Optical benchmarking ,Practice of Spectrophotometry, Derivative Spectroscopy, Applications of Absorption Spectrometry to Real Systems, Ambient Air Monitoring, Industrial Effluents, Metal Ions, Continuous Monitoring and Bio Chemical Analysis.

**COURSE DETAIL**

Week	Topics
1	Introduction to Atomic structure and Periodic Table
2	Interaction of matter with electro magnetic radiation, Types of Spectra
3	Theory of Spectrophotometry and Instrumentation
4	Quantitative analysis, photometric titrations, Turbidimetry and Nephelometry
5	Fluorescence , phosphorescence , chemiluminescence
6	Complementary Techniques for spectrophotometric finish
7	Determination of B, F, Ca, Phenols, As, Hg, Mg, Fe, PO <sub>4</sub> , Nitrite
8	Cd, Pb, Zn, Al, Cyanide, Sulphate, Ammonia

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