SRI VENKATESWARA COLLEGE OF ENGINEERING

COURSE DELIVERY PLAN - LABORATORY

Department of Biotechnology	LP: BT22411 Rev. No: 00 Date: 20.01.2025
~~B.E/~~B.Tech~~/M.E/M.Tech~~ : Biotechnology Regulation: 2022 PG Specialisation : NA Sub. Code / Sub. Name : BT22411 ANALYTICAL TECHNIQUES AND INSTRUMENTATION LABORATORY	

Session No*	List of Experiments
1	Precision and accuracy of an experiment using absorption spectroscopy.
2	Validation of Beer Lambert law using $KMnO_4$ solution.
3	Determination of pKa value of 4-nitrophenol using absorption spectroscopy
4	Determination of molar absorptivity and stoichiometry of the Fe using 1, 10 phenanthroline.
5	UV spectra of nucleic acids.
6	Analysis of amino acids using Thin Layer Chromatography.
7	Analysis of plant pigments using column chromatography
8	Limits of detection using aluminium alizarin complex.
9	Chemical actinometry using potassium ferrioxolate.
10	Estimation of $SO4^{2-}$ using Nephelometry.
11	Estimation of Al^{3+} using Fluorimetry.
Content beyond syllabus (if any): Flame photometry and Liquid Chromatography	

* Session Duration: 200 minutes

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Reference Books:

1.Instrumental Methods of Analysis (2022) by Nalini C N, Pharmamed Press.
2.Instrumental Methods Of Analysis, 7E(Pb) (2023) Willard, CBS Publishers & Distributors Pvt. Ltd.

	Prepared by	Approved by
Signature	20/1/25 20.1.25	
Name	**Mr. J. Hariharan & Dr. M. Nareshkumar**	**Dr. E. Nakkeeran**
Designation	Assistant Professor	Professor & Head, Department of Biotechnology
Date	20.01.2025	20/1/25

Remarks* :
The same lesson plan will be used for the subsequent four years.