

**CHEMISTRY LAB**  
(Common to IT,CSE-AIML,CSE-DS)

<b>Course Code</b>	23BS1251	<b>Year</b>	I	<b>Semester</b>	II
<b>Course Category</b>	Basic Sciences	<b>Branch</b>	CSE (DS)	<b>Course Type</b>	Lab
<b>Credits</b>	1	<b>L-T-P</b>	0-0-2	<b>Prerequisites</b>	Nil
<b>Continuous Internal Evaluation:</b>	<b>30</b>	<b>Semester End Evaluation:</b>	<b>70</b>	<b>Total Marks:</b>	<b>100</b>

<b>Course Outcomes</b>	
<b>Upon successful completion of the course, the student will be able to</b>	
CO1	<b>Demonstrate</b> the working of potentiometer and conductometer instruments. (L3)
CO2	<b>Prepare</b> advanced materials like polymers and Nano materials (L3)
CO3	<b>Calculate</b> the strength of Pb-Acid battery(L4)
CO4	<b>Examine</b> the ferrous iron content in a sample using dichrometry (L4)
CO5	<b>Calculate</b> the wave length of a sample by using UV-Visible Spectroscopy and colorimetry (L4)

<b>Contribution of Course Outcomes towards achievement of Program Outcomes &amp; Strength of correlations(3:High,2: Medium, 1:Low)</b>													
	PO 1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2
CO1	3												
CO2	3												
CO3		3											
CO4		3											
CO5		3											

Syllabus		
Exp. No.	Contents	Mapped CO
Experiments		
1	Conductometric titration of strong acid vs strong base	CO1
2	Conductometric titration of weak acid vs. strong base	CO1
3	Determination of cell constant and conductance of solutions	CO1
4	Potentiometry - determination of redox potentials and emfs	CO1
5	Determination of Strength of an acid in Pb-Acid battery	CO3
6	Preparation of a Bakelite	CO2
7	Verify Lambert-Beer's law	CO5
8	Wavelength measurement of sample through UV-Visible Spectroscopy	CO5
9	Preparation of nanomaterials by precipitation method	CO2
10	Estimation of Ferrous Iron by Dichrometry	CO4

#### Learning Resources

**References:**

- "Vogel's Quantitative Chemical Analysis 6th Edition " Pearson Publications by J. Mendham, R.C.Denney, J.D.Barnes and B. Sivasankar