

**CHEMISTRY LAB**

<b>Course Code</b>	23BS1151	<b>Year</b>	I	<b>Semester</b>	I
<b>Course Category</b>	Basic Sciences	<b>Branch</b>	EEE	<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>

**Course Outcomes**

**Upon successful completion of the course, the student will be able to**

CO1	Demonstrate the working of potentiometer and conductometer instruments. (L3)
CO2	Prepare advanced materials like polymers and Nano materials (L3)
CO3	Calculate the strength of Pb-Acid battery(L4)
CO4	Examine the ferrous iron content in a sample using dichrometry (L4)
CO5	Calculate the wave length of a sample by using UV-Visible Spectroscopy and colorimetry (L4)
CO6	Make an effective report based on the experiments.

**Contribution of Course Outcomes towards achievement of Program Outcomes & Strength of correlations(3:High,2: Medium, 1:Low)**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO 1	PSO 2
CO1	3			3								3		
CO2	3			3								3		
CO3	3			3								3		
CO4	3			3								3		
CO5	3			3								3		
CO6									3	3		3		

<b>Syllabus</b>		
Exp. No.	Contents	Mapped CO
<b>Experiments</b>		
1	Conductometric titration of strong acid vs strong base	CO1,CO6
2	Conductometric titration of weak acid vs. strong base	CO1,CO6
3	Determination of cell constant and conductance of solutions	CO1,CO6
4	Potentiometry - determination of redox potentials and emfs	CO1,CO6 CO1
5	Determination of Strength of an acid in Pb-Acid battery	CO3,CO6
6	Preparation of a Bakelite	CO2,CO6
7	Verify Lambert-Beer's law	CO5,CO6
8	Wavelength measurement of sample through UV-Visible Spectroscopy	CO5,CO6
9	Preparation of nanomaterials by precipitation method	CO2,CO6
10	Estimation of Ferrous Iron by Dichrometry	CO4,CO6

#### **Learning Resources**

Reference:

- "Vogel's Quantitative Chemical Analysis 6th Edition " Pearson Publications by J.

Mendham, R.C.Denney, J.D.Barnes and B. Sivasankar