

### Chemistry Lab

<b>Course Code</b>	23BS1151	<b>Year</b>	I	<b>Semester</b>	I
<b>Course Category</b>	Basic Sciences	<b>Branch</b>	ECE	<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>	30	<b>Semester End Evaluation:</b>	70	<b>Total Marks:</b>	100

### Course Outcomes

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

<b>CO1</b>	Demonstrate the working of potentiometer and conductometer instruments.L3
<b>CO2</b>	Prepare advanced materials like polymers and Nano materials L3
<b>CO3</b>	Calculate the strength of Pb-Acid battery L4
<b>CO4</b>	Examine the ferrous iron content in a sample using dichrometry L4
<b>CO5</b>	Calculate the wave length of a sample by using UV-Visible Spectroscopy and colorimetry L4
<b>CO6</b>	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
<b>CO1</b>	3			3								3		
<b>CO2</b>	3			3								3		
<b>CO3</b>	3			3								3		
<b>CO4</b>	3			3								3		
<b>CO5</b>	3			3								3		
<b>CO6</b>									3	3		3		

### Syllabus

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

9	Preparation of nanomaterials by precipitation method	CO2,6
10	Estimation of Ferrous Iron by Dichrometry	CO4,6

<b>Learning Resources</b>
---------------------------

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