Course Type	Course Code	Name of the Course	L	T	P	Credits
DC	NCYC104	**General Chemistry Lab-II**	0	0	2	1

Course Objective
To familiarize students with different aspects of practical chemistry in laboratory
Learning Outcomes
Students will correlate the theoretical knowledge with practical chemistry.

Unit No.	Topics to be Covered	Lecture Hours	Learning Outcome
1	Determination of pH of unknown solution (buffer), by colour matching method.	2	To gain knowledge of pH and applications.
2	Determination of heat of neutralization of a strong acid by a strong base	2	The student will learn thermochemistry principle by hand on experience
3	Study of kinetics of acid-catalyzed hydrolysis of methyl acetate.	2	The basic understanding of Kinetics
4	Study of kinetics of decomposition of H_2O_2	2	The fundamental principle of decomposition will be learned by the studentss
5	Determination of solubility of sparingly soluble salt in water, in electrolytes with common ions, and in neutral electrolytes (using a common indicator).	2	From this experiment variation of electrolysis will be understood
6	Determination of hardness of water.	2	Students can judge the quality of water by hardness measurement.
7	Determination of viscosity of an unknown liquid.	2	Students can estimate the viscosity of the liquid.
8	Verification of Beer-Lamberts law	2	Students will be able to determine the concentration of the solution.
9	Synthesis of Mohr's salt	2	Learn the synthesis of inorganic salts.
10	Solid state synthesis of inorganic compound.	2	Students will learn the solid-phase synthesis.
11	Purification of organic compounds by crystallization (for solid) and or fractional distillation (for liquid).	2	The students will learn how to detect the presence of functional groups in

12	Functional group analysis in organic compounds.	2	organic compounds and their separation in pure form and also confirm identification by covering to some derivatives.
13	Separation of the binary organic mixture.	2	
14	Preparation of derivatives for identification of organic compounds.	2	

Text Book:

1. **Mendham, J., A. I. Vogel's Quantitative Chemical Analysis 6th Ed., Pearson, 2009.**
2. **Collection of Interesting General Chemistry Experiments, Anil J Elias, Universities Press, 2008.**