

Semester	AUG 2022
Open to semester	3
Course code	CH2243
Course title	General Chemistry Practicals II (E)
Credits	3 /
Course Coordinator & participating faculty (if any)	Harinath Chakrapani,* Ramakrishna Bhat, Alope Das, Arun Venkatanathan, Sujit Ghosh, Vaidhyanathan
Nature of Course	Lab
Pre-requisites	None
Objectives (goals, type of students for whom useful, outcome etc)	The objective of the course is to understand and develop basic skills and learn new techniques in experimental chemistry, as well as analysis and interpretation of experimental data. This course will give a broad overview of major fields of chemistry. At the end of this course, the students will have a good foundation in experimental chemistry and how it connects to theoretical concepts.
Course contents (details of topics /sections with no. of lectures for each)	<p>List of experiments (likely):</p> <ol style="list-style-type: none"> 1. Determination of Acid-Neutralizing power of Commercial Antacids 2. Preparation of Potash Alum from Aluminum 3. Synthesis of molybdenum blue and estimation of phosphoric acid in cold drinks by Mo-Blue Method 4. Saponification of esters and soap manufacturing with different ingredients. 5. Claisen-Schmidt Condensation 6. Chemiluminescence: synthesis of Luminol and its chemiluminescence property 7. Stereochemistry: synthesis of a chiral dopant and visualizing molecular chirality 8. Polymerization: synthesis of Nylon 9. Acid-base Titrations using Conductivity Method (general concept about acid-base and electrochemistry) 10. To investigate the phenomena of Depression in Freezing point and determine the molar mass of unknown solute (Colligative properties) 11. Determination of Heat of Neutralization. (Thermodynamics) 12. Study the second order velocity constant of the hydrolysis

	of ethyl acetate by sodium hydroxide using conductivity measurements (Kinetics)
Evaluation /assessment	End-Sem Examination-% Mid-Sem Examination-% Others-a. Lab records: 60 % b. Lab conduct/group work/ following safety instructions - 10% c. End-semester exam/quiz: 30%%
Suggested readings (with full list of authors, publisher, year, edn etc.)	Lab manual will be provided