



Vitthalbhai Patel & Rajratna P. T. Patel Science College
(Autonomous)

(Reaccredited with 'A' Grade by NAAC (CGPA 3.13))

Affiliated to SARDAR PATEL UNIVERSITY

Vallabh Vidyanagar, Gujarat

Syllabus effective from the Academic Year 2024-2025



Course Code (Multi Disciplinary)	US2MDCHE02	Title of the Course	CHEMISTRY PRACTICAL-4
Total Credits of the Course	2	Hours per Week	4

Course Objectives:	To make students familiar with: 1. Chemistry as a subject. 2. Practical aspects of chemistry. 3. Basic concepts related to qualitative analysis of organic substances. 4. Hands on training on laboratory practices.
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Course Content	
Practical	Description
1	Identification of Organic substance: Like organic spotting, detection of elements, Type of compound like aliphatic/aromatic, Nature (acidic/basic/neutral), Functional group(s) analysis, and m.pt. /b.pt. Benzoic acid, Salicylic acid, α -Naphthol, β -Naphthol, p-nitroaniline/m-nitroaniline, Acetanilide, Urea, Naphthalene, p-dichlorobenzene, m-dinitrobenzene, Dextrose, Acetamide, Acetone, Methanol, Methyl acetate/Ethyl acetate, Carbon tetrachloride, Benzaldehyde, Aniline

Teaching- Learning Methodology	Hands on training, Practical Courses for B. Sc. Chemistry programme are delivered through classroom, laboratory work in a challenging, engaging, and inclusive manner that accommodates a variety of learning styles and tools (PowerPoint presentations, audio visual resources, e-resources, seminars, workshops, models).
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Evaluation Pattern		
Sr. No.	Details of the Evaluation	Weightage
1.	Continuous and compression evaluation : Laboratory work Assessment 10 (40%), Viva Voce/Lab Quiz 10 (40%), Attendance 05 (20%). [Total 25 Marks (100%)]	50
2.	Semester End Examination : Laboratory work Assessment 20 (80%), Viva Voce/Lab Quiz 5 (20%). (As per SPU Letter No. E-3/2748 dated 02/02/2024) [Total 25 Marks (100%)].	50

Course Outcomes: Having completed this course, the learner will be able to	
1.	Learn about hands on training of Analysis of organic substances.
2.	Improve practical skills of students.

Suggested References:	
Sr. No.	References
1.	Mendham, J., Denney, R. C., Barnes, J. D., Thomas, M. J. K., <i>Vogel's textbook of quantitative chemical analysis</i> , 6 th Edition.
2.	Pandey, O. P., Bajpai, D. N., Giri, S., <i>Practical Chemistry</i> .
3	Ghoshal, Mahapatra, Nad , <i>An Advanced course in Practical Chemistry</i> .

On-line resources to be used if available as reference material
On-line Resources: Google books, INFLIBNET, Google Web
