SARDAR PATEL UNIVERSITY
Vallabh Vidyanagar, Gujarat
(Reaccredited with 'A' Grade by NAAC (CGPA 3.25)
Syllabus with effect from the Academic Year 2021-2022

(Bachelor of Science) (Undergraduate)
B. Sc. (UG) Semester-I

Course Code	**US01CCHE52**	Title of the Course	**PRACTICAL IN CHEMISTRY- I**
Total Credits of the Course	2	Hours per Week	4

Course Objectives:	To make students familiar about: 1. Chemistry as a subject 2. Practical aspects of chemistry 3. Basic concepts related to volumetric analysis and qualitative analysis of inorganic substances. 4. Hands on training of laboratory practices.

Course Content	
Unit	Description
1.	**Volumetric analysis** of strong acid [HCl] and weak acids [oxalic acid/Acetic acid] against strong base [NaOH].
2.	**Analysis of Inorganic substances** Identification of inorganic substance [at least 12 substances] as a positive and negative radicals like : Pb^{+2}, Cu^{+2}, Fe^{+2}, Zn^{+2}, Al^{+3}, Ni^{+2}, Mn^{+2}, Ba^{+2}, Sr^{+2}, Ca^{+2}, Mg^{+2}, NH_4^+, K^+, Cl^-, Br^-, I^-, NO_3^-, CO_3^{-2} , S^{-2}, PO_4^{-3}, SO_4^{-2}, CrO_4^{-2}, $Cr_2O_7^{-2}$ etc. including phosphate scheme.

Teaching-Learning Methodology	Hands on training of Practical's. 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).

Evaluation Pattern		
Sr. No.	Details of the Evaluation	Weightage
1.	Internal Written / Practical Examination (As per CBCS R.6.8.3)	--
2.	Internal Continuous Assessment in the form of Practical, Viva-voce, Quizzes, Seminars, Assignments, Attendance (As per CBCS R.6.8.3)	--
3.	University Examination	100%

Course Outcomes: Having completed this course, the learner will be able to learn	
1.	About hands on training of Volumetric analysis and Analysis of Inorganic substances.
2.	About improvement in practical skills of students.

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

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

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