



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 - Home Science
(B.Sc.- H.Sc.) (Home Science) Semester (I)

Course Code	UH01CBSC60	Title of the Course	Practical - Basic Science-I
Total Credits of the Course	02	Hours per Week	04

Course Objectives:	1.To make them understand Volumetric and inorganic Qualitative analysis. 2. To demonstrate parts of microscope and prepare slides. 3. To recognise the various parts of flowering plants.
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Course Content		
Unit	Description	Weightage* (%)
1.	Volumetric analysis of strong acid [HCl] and weak acids [oxalic acid/Acetic acid] against strong base [NaOH], and strong base against weak acid.	10
2.	Qualitative analysis of water soluble Inorganic Compounds containing one Positive and one Negative Radicals. Positive radicals- Ag^{+1} , Pb^{+2} , Cu^{+2} , Bi^{+3} , Al^{+3} , Fe^{+3} , Fe^{+2} , Mn^{+2} , Zn^{+2} , Ni^{+2} , Co^{+2} , Ca^{+2} , Ba^{+2} , Mg^{+2} , NH_4^+ , K^+ Negative radicals- SO_4^- , NO_3^{-1} , CrO_4^{-2} , $\text{Cr}_2\text{O}_7^{-2}$, Cl^- , Br^- , I^- , OH^-	30
3.	To prepare standard solutions of various concentrations.	05
4.	To study the parts of Compound Microscope and its Uses.	05
5	To prepare temporary slides of onion peels for studying the cell Structure.	10
6	To prepare temporary slides of Rhoeo peel for studying the stomata and chloroplast.	05
7	To study a typical flowering plant body.	05
8	To study Unisexual and Bisexual flowers through dissection method (Dhatura, Hibiscus, Sunflower, Cucurbits)	10



9	Plant physiology :(Photosynthesis and Respiration)	15
10	To study of Osmosis and Diffusion.	05

Teaching-Learning Methodology	Practical, ICT enabled teaching and learning experiences in terms of video lessons Discussion, By way of Demonstrations.	
Evaluation Pattern		
Sr. No.	Details of the Evaluation	Weightage
1.	Internal Written / Practical Examination (As per CBCS R.6.8.3)	15%
2.	Internal Continuous Assessment in the form of Practical, Viva-voce, Attendance (As per CBCS R.6.8.3)	15%
3.	University Examination	70%

Course Outcomes: Having completed this course, the learner will be able to	
1.	Apply scientific methodology and demonstrate the ability to draw conclusions based on observation and analysis.
2.	Recognize and apply concepts and theories of basic biological sciences.
3.	Demonstrate connections with other subject areas.

Suggested References:	
Sr. No.	References
1.	Mendham, J., R, Denney., J Barnes., K, Thomas. <i>Vogel's textbook of Quantitative Chemical Analysis.</i> (6 th ed.).
2.	<i>An Advanced course in Practical Chemistry</i> , Ghoshal, Mahapatra ,Nad.
3	Dutta A.C., John Brown, (1980) <i>A class book of Botany</i> , Calcutta: oxford university press. Faraday House.
4	Sharma V.K. (1990) <i>Biology class XI</i> , New Delhi: 23, Daryaganj Publishers.

