

UNIVERSITY OF MADRAS
B.Sc. DEGREE PROGRAMME IN PLANT BIOLOGY AND
PLANT BIOTECHNOLOGY
SYLLABUS WITH EFFECT FROM 2023-2024

Title of the Course	CHEMISTRY PRACTICAL FOR PHYSICAL AND BIOLOGICAL SCIENCES-II						
Paper No.	Generic Elective						
Category	Generic Elective	Year	II	Credits	1	Course Code	239E41
		Semester	IV				
Instructional hours per week	Lecture	Tutorial	Lab Practice		Total		
	-	-	2		2		
Prerequisites							
Objectives of the course	<p>This course aims to provide knowledge on <input type="checkbox"/> identification of organic functional groups <input type="checkbox"/> different types of organic compounds with respect to their properties. <input type="checkbox"/> determination of elements in organic compounds.</p>						
	<p>SYSTEMATIC ANALYSIS OF ORGANIC COMPOUNDS</p> <p>The analysis must be carried out as follows:</p> <p>(a) Functional group tests [phenol, acids (mono & di) aromatic primary amine, amides (mono & di), aldehyde and glucose].</p> <p>(b) Detection of elements (N, S, Halogens).</p> <p>(c) To distinguish between aliphatic and aromatic compounds.</p> <p>(d) To distinguish – Saturated and unsaturated compounds.</p>						
Reference Books	<p>V.Venkateswaran, R.Veerasingam, A.R.Kulandaivelu, Basic Principles of Practical Chemistry; Sultan Chand & sons, Second edition, 1997.</p>						
<p>Course Learning Outcomes (for Mapping with POs and PSOs) On completion of the course the students should be able to</p> <p>CO 1: gain an understanding of the use of test tubes, boiling tubes, fusion tubes.</p> <p>CO 2: design, carry out, record and interpret the results of organic analysis.</p> <p>CO 3: apply their skill in the analysis of functional group present in organic compounds.</p>							

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CO4: analyze the chemical constituents in allied chemical products

CO-PO Mapping (Course Articulation Matrix)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CO1	S	S	S	S	S	S	S	M	S	M
CO2	M	S	S	S	M	S	S	M	M	M
CO3	S	S	S	M	S	S	S	M	S	M
CO4	S	S	S	S	S	S	S	M	M	M

Level of Correlation between PO's and CO's

CO /PO	PO1	PO2	PO3	PO4	PO5
CO1	3	3	3	3	3
CO2	3	3	3	3	3
CO3	3	3	3	3	3
CO4	3	3	3	3	3
Weightage	12	12	12	12	12
Weighted percentage of Course Contribution to POs	3.0	3.0	3.0	3.0	3.0