



**PROGRAMME STRUCTURE**  
**M.Sc. Biochemistry Semester: IV**

Programme Outcome (PO) - For M.Sc. Biochemistry Programme	<ol style="list-style-type: none"><li>1. Biochemistry masters students will be able to comprehend fundamental Biochemistry principles underlying normal physiology and pathogenesis.</li><li>2. They will develop proficiency in Biochemistry Laboratory experiments as well as theory.</li><li>3. They will be able to translate their knowledge with a skilful job at various industries and research labs.</li><li>4. The students will become employable in the fields of Quality Assurance, Production, Research and Teaching in Biopharmaceuticals, Nutraceuticals, Dairy, Agriculture, Environment, Clinical, Biotechnology and Life sciences.</li></ol>
Programme Specific Outcome (PSO) - For MSc Biochemistry Semester - IV	<ol style="list-style-type: none"><li>1. The students will learn principles of important instruments useful in Biochemistry experiments.</li><li>2. The Biochemistry students will further develop their proficiency in Biochemistry Laboratory experiments as well as theory.</li><li>3. They will be able to design and carry out standard Biochemistry experiments on their own.</li></ol>
To Pass	<ol style="list-style-type: none"><li>(1) At least 40% marks in each paper at the University Examination and 40% aggregate marks in Internal and External Assessment.</li><li>(2) At least 33% Marks in each paper in Internal Assessment.</li></ol>





**SARDAR PATEL UNIVERSITY**  
**Vallabh Vidyanagar, Gujarat**  
**(Reaccredited with 'A' Grade by NAAC (CGPA 3.25))**  
**Syllabus with effect from the Academic Year 2022-2023**

Course Type	Course Code	Name Of Course	Theory/ Practical	Credit	Exam Duration in hrs	Component of Marks		
						Internal	External	Total
						Total	Total	Total
Core Course	PS04CBIC51	Animal Biotechnology	T	4	3	30	70	100
	PS04CBIC52	Nutritional and Clinical Biochemistry	T	4	3	30	70	100
	PS04CBIC53	Practical	P	4	4	30	70	100
	PS04CBIC54	Viva-Voce	=	1	=	=	50	50
Elective Course (Any Two)	PS04EBIC51	IPR and Biosafety	T	4	3	30	70	100
	PS04EBIC52	Research Ethics and Scientific Writing	T	4	3	30	70	100
	PS04EBIC53	Practical	P	4	4	30	70	100
	PS04EBIC54	Biomaterials and Tissue Engineering	T	4	3	30	70	100
	PS04EBIC55	Biodiversity and Conservation	T	4	3	30	70	100
	PS04EBIC56	Downstream Processing	T	4	3	30	70	100
	PS04EBIC57	Systems Biology	T	4	3	30	70	100
	PS04EBIC58	Plant Biotechnology	T	4	3	30	70	100
		<b>OR</b>						
Core Course	PS04CBIC51	Animal Biotechnology	T	4	3	30	70	100
	PS04CBIC52	Nutritional and Clinical Biochemistry	T	4	3	30	70	100
	PS04CBIC53	Practical	P	4	6	30	70	100
	PS04CBIC54	Viva-Voce	=	1	=	=	50	50
Elective Course	PS04EBIC59	Dissertation	=	12	=	90	210	300

