



## **PROGRAMME STRUCTURE**

### **M.Sc. Biotechnology Semester: IV**

Programme Outcome (PO) - For M.Sc. Biotechnology Programme	On successful completion of the Masters in Biotechnology course, the student will be able to: <ol style="list-style-type: none"><li>1. Demonstrate an ability for in depth analytical and critical thinking to identify and solve problems related to Biotechnology in industry, medicine and Agriculture</li><li>2. Comprehend and integrate theoretical and practical skills</li><li>3. Demonstrate mastery in handling sophisticated laboratory equipment and their appropriate applications.</li><li>4. Become a professional suitable to be employed in industry as well as academic institutions</li><li>5. Understand professional and ethical responsibility.</li></ol>
Programme Specific Outcome (PSO) - For MSc Biotechnology Semester - IV	<ol style="list-style-type: none"><li>1. Students will be able to demonstrate and apply their knowledge of cell structure and functions both at organelle and molecular level and solve the problems related to the field of biotechnology</li><li>2. Students will be exposed to basic physiological and metabolic processes and their relevance in Biotechnology</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	PS04CBIT51	Downstream processing	T	4	3	30	70	100
	PS04CBIT52	Environmental Biotechnology	T	4	3	30	70	100
	PS04CBIT53	Practicals	P	4	3	30	70	100
	PS04CBIT54	Viva-Voce	=	1	=	=	50	50
Elective Course (Any Two)	PS04EBIT51	IPR and Biosafety	T	4	3	30	70	100
	PS04EBIT52	Research Ethics and Scientific Writing	T	4	3	30	70	100
	PS04EBIT53	Practicals	P	4	3	30	70	100
	PS04EBIT54	Systems Biology	T	4	3	30	70	100
	PS04EBIT55	Biomaterials and Tissue Engineering	T	4	3	30	70	100
	PS04EBIT56	Biodiversity and Conservation	T	4	3	30	70	100
	PS04EBIT57	Food and Dairy Microbiology	T	4	3	30	70	100
		<b>OR</b>						
Core Course	PS04CBIT51	Downstream processing	T	4	3	30	70	100
	PS04CBIT52	Environmental Biotechnology	T	4	3	30	70	100
	PS04CBIT53	Practicals	P	4	3	30	70	100
	PS04CBIT54	Viva-Voce	=	1	=	=	50	50
Elective Course	PS04EBIT58	Dissertation	=	12	=	=	300	300

