

Sardar Patel University
Syllabus Structure: B.Sc. Biomedical Science
(Effect from June, 2024)

Semester-I										
Sr. No	Subject	Course Code	Course Type	T/ P	Credit	No of hr./Wk.	Exam Duration in hr	Component of Marks		
								Internal	External	Total
1	Cell Biology	UT01MABMS01	Core (Disciplinary Major)	T	4	4	2.30	50	50	100
2	Cell Biology Practical	UT01MABMS02	Core (Disciplinary Major)	P	4	8	3	50	50	100
3	Introduction to Biomolecules	UT01IDBMS01	Interdisciplinary Minor	T	2	2	1.30	25	25	50
4	Introduction to Biomolecules Practical	UT01IDBMS02	Inter Disciplinary Minor	P	2	4	2	25	25	50
5	Basic Instrumentation	UT01MDBMS01	MDC	T	2	2	1.30	25	25	50
6	Basic Instrumentation Practicals	UT01MDBMS02	MDC	P	2	4	2	25	25	50
7	English-1	UT01AEBMS01	AEC (Compulsory)	T	2	2	1.30	25	25	50
8	Basic IT Tools	UT01SEBMS01	SEC	T	2	2	1.30	25	25	50
9	IKS-1	UT01VABMS01	VAC	T	2	2	1.30	25	25	50
					22					550

Credits for semester-I

Major Course	Minor Course	MDC	AEC	SEC	VAC/IKS	Internship	Total
8	4	4	2	2	2	----	22

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Semester-II										
Sr. No	Subject	Course Code	Course Type	T/P	Credit	No of hr./Wk.	Exam Duration in hr	Component of Marks		
								Internal	External	Total
1	Principle of Genetics	UT02MABMS01	Core (Disciplinary Major)	T	4	4	2.30	50	50	100
2	Principle of Genetics Practical	UT02MABMS02	Core (Disciplinary Major)	P	4	8	3	50	50	100
3	Medical Microbiology	UT02IDBMS01	Interdisciplinary Minor	T	2	2	1.30	25	25	50
4	Medical Microbiology Practical	UT02IDBMS02	Inter Disciplinary Minor	P	2	4	2	25	25	50
5	Biophysics	UT02MDBMS01	MDC	T	2	2	1.30	25	25	50
6	Biophysics Practical	UT02MDBMS02	MDC	P	2	4	2	25	25	50
7	English-II	UT02AEBMS01	AEC (Compulsory)	T	2	2	1.30	25	25	50
8	Accounting and Tally	UT02SEBMS01	SEC	T	2	2	1.30	25	25	50
9	IKS-2	UT02VABMS01	VAC	T	2	2	1.30	25	25	50
					22					550

Credits for semester-II

Major Course	Minor Course	MDC	AEC	SEC	VAC/IKS	Internship	Total
8	4	4	2	2	2	-----	22

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Semester-III										
Sr. No	Subject	Course Code	Course Type	T/P	Credit	No of hr./Wk.	Exam Duration in hr	Component of Marks		
								Internal	External	Total
1	Human Anatomy and Physiology -I	UT03MABMS01	Core (Disciplinary Major)	T	4	4	2.30	50	50	100
2	Biochemistry	UT03MABMS02	Core (Disciplinary Major)	T	4	4	2.30	50	50	100
3	Human Anatomy and Physiology -I and Biochemistry Practical	UT03MABMS03	Core (Disciplinary Major)	P	4	8	3	50	50	100
4	Bioinorganic Chemistry	UT03MDBMS01	MDC	T	2	2	1.30	25	25	50
5	Bioinorganic Chemistry Practicals	UT03MDBMS02	MDC	P	2	4	2	25	25	50
6	Functional Grammar and Composition	UT03AEBMS01	AEC (Compulsory)	T	2	2	1.30	25	25	50
7	Finance for Everyone	UT03SEBMS01	SEC	T	2	2	1.30	25	25	50
8	Intellectual Property Right (IPR)	UT03VABMS01	VAC	T	2	2	1.30	25	25	50
					22					550

Credits for semester-III

Major Course	Minor Course	MDC	AEC	SEC	VAC/IKS	Internship	Total
12	0	4	2	2	2	-----	22

**Department
of Applied**

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Semester-IV										
Sr. No	Subject	Course Code	Course Type	T / P	Credit	No of hr./Wk.	Exam Duration in hr.	Component of Marks		
								Internal	External	Total
1	Human Anatomy and Physiology - II	UT04MABMS01	Core (Disciplinary Major)	T	4	4	2.30	50	50	100
2	Enzymology	UT04MABMS02	Core (Disciplinary Major)	T	4	4	2.30	50	50	100
3	Human Anatomy and Physiology- II and Enzymology Practical	UT04MABMS03	Core (Disciplinary Major)	P	4	8	3	50	50	100
4	Introduction to Bioinformatic	UT04IDBMS01	(Interdisciplinary Minor)	T	2	2	1.30	25	25	50
5	Introduction to Bioinformatic- Practical	UT04IDBMS02	(Inter Disciplinary Minor)	P	2	4	2	25	25	50
6	Marketing and Mass communication	UT04AEBMS01	AEC (Compulsory)	T	2	2	1.30	25	25	50
7	Maintenance and Testing of Home Appliances	UT04SEBMS01	SEC	T	2	2	1.30	25	25	50
8	Environmental Safety	UT04VABMS01	VAC	T	2	2	1.30	25	25	50
					22					550

Credits for semester-IV

Major Course	Minor Course	MDC	AEC	SEC	VAC/IKS	Internship	Total
12	4	0	2	2	2	-----	22

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Semester-V										
Sr. No	Subject	Course Code	Course Type	T/ P	Credit	No of hr./Wk.	Exam Duration in hr	Component of Marks		
								Internal	External	Total
1	Immunology	UT05MABMS01	Core (Disciplinary Major)	T	4	4	2.30	50	50	100
2	Molecular Biology	UT05MABMS02	Core (Disciplinary Major)	T	4	4	2.30	50	50	100
3	Immunology and Molecular Biology Practical	UT05MABMS03	Core (Disciplinary Major)	P	4	8	3	50	50	100
4	Medical Laboratory Diagnosis	UT05IDBMS01	(Disciplinary Minor)	T	4	4	2.30	50	50	100
5	Medical Laboratory Diagnosis Practical	UT05IDBMS02	(Disciplinary Minor)	P	4	8	3	50	50	100
6	QA & RA	UT05SEBMS01	SEC	T	2	2	1.30	25	25	50
					22					550

Credits for semester-V

Major Course	Minor Course	MDC	AEC	SEC	VAC/IKS	Internship	Total
12	8	0	0	2	0	-----	22

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Semester-VI										
Sr. No	Subject	Course Code	Course Type	T/P	Credit	No of hr./Wk.	Exam Duration in hr.	Component of Marks		
								Internal	External	Total
1	Medical Biochemistry	UT06MABMS01	Core (Disciplinary Major)	T	4	4	2.30	50	50	100
2	Human Pathology	UT06MABMS02	Core (Disciplinary Major)	T	4	4	2.30	50	50	100
3	Medical Biochemistry and Human Pathology- Practicals	UT06MABMS03	Core (Disciplinary Major)	P	4	8	3	50	50	100
4	Fundamental of Tissue Engineering	UT06IDBMS01	(Disciplinary Minor)	T	2	2	1.30	25	25	50
5	Fundamental of Tissue Engineering- Practicals	UT06IDBMS02	(Disciplinary Minor)	P	2	4	2	25	25	50
6	Life Skills	UT06AEBMS01	AEC	T	2	4	1.30	25	25	50
7	Internship	UT06RPBMS01	RP		4	120 total		0	100	100
					22					550

Credits for semester-VI

Major Course	Minor Course	MDC	AEC	SEC	VAC/IKS	Internship	Total
12	4	0	2	0	-----	4	22

Sardar Patel University
Syllabus Structure: B.Sc. Biomedical Science
(Credit Framework for 3-Year B.Sc. Biomedical Science)

Semester	Major Course	Minor Course	MDC	AEC	SEC	VAC/IKS	Internship	Total
I	8	4	4	2	2	2	----	22
II	8	4	4	2	2	2	----	22
III	12	0	4	2	2	2	----	22
IV	12	4	0	2	2	2	0	22
V	12	8	0	0	2	0	0	22
VI	16 (12+4)	4	0	2	0	0	4	22
Total	68 (64+4)	24 (12+12)	12	10	10	8	4	132

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Syllabus Structure: B.Sc. Biomedical Science
(Effect from June, 2026)

Semester-VII										
Sr. No	Subject	Course Code	Course Type	T/ P	Credit	No of hr./Wk.	Exam Duration in hr	Component of Marks		
								Internal	External	Total
1	Genetic Engineering	UT07MABMS01	Core (Disciplinary Major)	T	4	4	2.30	50	50	100
2	Instrumentation Techniques in Biomedical Science	UT07MABMS02	Core (Disciplinary Major)	T	4	4	2.30	50	50	100
3	Genetic Engineering and Instrumentation Techniques in Biomedical Science - Practical's	UT07MABMS03	Core (Disciplinary Major)	P	4	8	3	50	50	100
4	Toxicology	UT07IDBMS01	(Disciplinary Minor)	T	2	2	1.30	25	25	50
5	Toxicology - Practical's	UT07IDBMS02	(Disciplinary Minor)	P	2	4	2	25	25	50
6	Internship/OJT	UT07RPBMS01			6	180 Total			150	150
					22					550

Credit for semester -VII

Major Course	Minor Course	MDC	AEC	SEC	VAC/IKS	Internship	Total
12	4	0	0	0	-----	6	22

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Semester-VIII										
Sr. No	Subject	Course Code	Course Type	T/P	Credit	No of hr./Wk.	Exam Duration in hr	Component of Marks		
								Internal	External	Total
1	Medical Biotechnology	UT08MABMS01	Core (Disciplinary Major)	T	4	4	2.30	50	50	100
2	Molecular Medicine	UT08MABMS02	Core (Disciplinary Major)	T	4	4	2.30	50	50	100
3	Medical Biotechnology and Molecular Medicine- Practicals	UT08MABMS03	Core (Disciplinary Major)	P	4	8	3	50	50	100
4	Biomedical Waste Management	UT08IDBMS01	(Disciplinary Minor)	T	2	2	1.30	25	25	50
5	Biomedical Waste Management - Practical's	UT08IDBMS02	(Disciplinary Minor)	P	2	4	2	25	25	50
6	Internship/OJT	UT08RPBMS01			6	120 total			150	150
					22					

Credit for semester -VIII

Major Course	Minor Course	MDC	AEC	SEC	VAC/IKS	Internship	Total
12	4	0	0	0	-----	6	22

Sardar Patel University
Syllabus Structure: B.Sc. Biomedical Science
(Credit Framework for 4-Year B.Sc. Biomedical Science)

Semester	Major Course	Minor Course	MDC	AEC	SEC	VAC/IKS	Internship	Total
I	8	4	4	2	2	2	--	22
II	8	4	4	2	2	2	--	22
III	12	0	4	2	2	2	--	22
IV	12	4	0	2	2	2	0	22
V	12	8	0	--	2	--	0	22
VI	16 (12+4)	4	0	2	0	--	4	22
VII	12	4	0	0	0	--	6	22
VIII	12	4	0	0	0	--	6	22
Total	92 (88+4)	32	12	10	10	8	12	176