Programme Name:

- **B.Sc. Biochemistry, Microbiology & Biology**
- **B.Sc. Biochemistry, Zoology & Biotechnology**
- **B.Sc. Biochemistry, Biology & Biotechnology**
- **B.Sc. Biochemistry, Microbiology & Zoology**
- **B.Sc. Biochemistry, Botany & Biotechnology**

Core Subject 1: Biochemistry

Summary of Courses in Chemistry from semester 1-6

DEPARTMENT OF BIOCHEMSITRY (COURSES FOR 2027-2030)

Semester 1	Code Number	Title	No of hours of instructions	Number of hours of teaching per week	Number of credits	Continuous Assessment (CA) Marks	End semester marks	Total marks
Theory	BCH 1T127	Biophysical Foundations of Biochemistry	45	3	3	40	60	100
Practical	BCH 1P1 27	Physical and Quantitative Biochemistry Lab	44	3	2	30	20	50

Semester 1	Code Number	Title	No of hours of instructions	Number of hours of teaching per week	Number of credits	Continuous Assessment (CA) Marks	End semester marks	Total marks
Total Number of credits:					5			

Semester 2	Code Number	Title	No of hours of instructions	Number of hours of teaching per week	Number of credits	Continuous Assessment (CA) Marks	End semester marks	Total marks
Theory	BCH 2T1 27	Bioinorganic and Bioorganic Chemistry	45	**3**	**3**	**40**	**60**	100
Practical	BCH 2P1 27	Bioinorganic and Bioorganic Chemistry Lab	44	3	2	30	20	50
Total Number of credits:					5			

Semester 3	Code Number	Title	No of hours of instructions	Number of hours of teaching per week	Number of credits	Continuous Assessment (CA) Marks	End semester marks	Total marks
Theory	BCH 3T1 27	Biomolecules & Metabolism I – Carbohydrates, Proteins & Enzymology	45	3	3	40	60	100
Practical	BCH 3P1 27	Biomolecules-1: Carbohydrates, Proteins and Enzymology Lab	44	3	2	30	20	50
Total Number of credits:					5			

Semester 4	Code Number	Title	No of hours of instructions	Number of hours of teaching per week	Number of credits	Continuous Assessment (CA) Marks	End semester marks	Total marks
Theory	BCH 4T1 27	Biomolecules & Metabolism II – Lipids & Nucleic Acids	45	3	3	40	60	100
Practical	BCH 4P1 27	Biomolecules-2: Lipids, nucleic acids and Molecular Biology Lab	44	3	2	30	20	50
Total Number of credits:					5			

Semester 5	Code Number	Title	No of hours of instructions	Number of hours of teaching per week	Number of credits	Continuous Assessment (CA) Marks	End semester marks	Total marks
Theory	BCH 5T1 27	Advanced Molecular Biology, Spectroscopy & Omics Technologies	45	3	3	40	60	100
Practical	BCH 5P1 27	Advanced Molecular Biology and Spectroscopic Techniques Lab	44	3	2	30	20	50
Practical	BCH 5SD 27	Skill Development Course-1: Natural Products Chemistry: Extraction and Analysis	44	3	2	30	20	50
Total Number of credits:					7			

Semester 6	Code Number	Title	No of hours of instructions	Number of hours of teaching per week	Number of credits	Continuous Assessment (CA) Marks	End semester marks	Total marks
Theory	BCH 6T1 27	Clinical Biochemistry, Redox Biology, Immunology & Translational Omics	45	3	3	40	60	100
Theory	BCH 6RM 27	Research Methodology	30	2	2	20	30	50
Practical	BCH 6P1 27	Bioinformatics and Omics Lab	44	3	2	30	20	50
Practical	BCH 6RM 27	Practical Knowledge/Skill Course	44	3	2	30	20	50
Total Number of credits:					9			

Total no. of credits from six semesters from core 1 Biochemistry: S1+S2+S3+S4+S5+S6	**36**
Additional Credits – Ignitors, HRD, Outreach and additional credits	**14**
Total no. of credits for optional 1	

Credit Structure - FOR ACADEMIC YEARS– 2027-2030

Semester	Core 1 (Theory+Practical)	Core 2 (Theory+Practical)	Core 3 (Theory+Practical)	Paper 4 Swayam NPTEL	Lang 1	Lang 2	Foundation Courses	Electives	Practical Knowledge/Skill	Elementary research methodology	Total Credits per semester
Sem 1	3+2	3+2	3+2		3	3	2				23
Sem 2	3+2	3+2	3+2	2	3	3	2				25
Sem 3	3+2	3+2	3+2		3	3		2			23
Sem 4	3+2	3+2	3+2	2	3	3		2			25
Sem 5	3+2	3+2	3+2		-	-			2+2+2		21
Sem 6	3+2	3+2	3+2		-	-			2+2+2	2	23
Total Credits	30	30	30	4	12	12	4	4	12	2	140

Credits from 6 semesters	140
Additional Credits	14
Total	154