

Bachelor of Science in Biotechnology (Honours/Honours with Research); Total Credit: 160+4

FIRST SEMESTER						SECOND SEMESTER					
Code	Course Name	L	T	P	C	Code	Course Name	L	T	P	C
BIO1107	Cell Biology	2	1	2	4	BIO1207	Fundamentals of Biotechnology	2	1	2	4
BIO1120	Diversity of Life	3	1	0	4	BIO1290	Fundamentals of Microbiology	2	1	2	4
CHY1101	Atomic Structure, Bonding, and Periodicity	2	1	2	4	CHY1201	States of Matter and Molecular Properties	2	1	2	4
MAS1122	Fundamentals of Computer	1	0	1	2	PHY1240	Report Writing	1	1	0	2
LLC1110	Communicative English	2	0	0	2	MAS1221	Logical Reasoning and Competitive Aptitude	1	1	0	2
CHY1003	Environmental Science	2	0	0	2	MAS1222	Introduction to Python Programming	1	0	1	2
PES1030	Health, Fitness, and Active Lifestyle	1	0	2	2	MAS1223	Ancient Indian Knowledge System	2	0	0	2
		13	3	7	20			11	5	7	20
Total Contact Hours (L + T + P)		23				Total Contact Hours (L + T + P)		23			
THIRD SEMESTER						FOURTH SEMESTER					
BIO2107	Biochemistry	2	1	2	4	BIO2207	Immunology	2	1	2	4
BIO2108	Molecular Biology	2	1	2	4	BIO2208	Recombinant DNA Technology and Forensics	2	1	2	4
BIO2109	Genetics	3	1	0	4	BIO2220	Bioanalytical Techniques	2	1	2	4
CHY2170	Scientific Writing	2	0	0	2	BIO2209	Animal Cell Culture	2	1	2	4
CHY2121	General Chemistry	2	1	0	3	BIO2290	Project Based Learning – I	0	0	4	2
PHY2140	Basic Instrumentation Skills	2	1	0	3	PHY2240	Scientific Translation and Linguistic Competence	2	0	0	2
		13	5	4	20			10	4	12	20
Total Contact Hours (L + T + P)		22				Total Contact Hours (L + T + P)		26			
FIFTH SEMESTER						SIXTH SEMESTER					
BIO3120	Environmental Biotechnology	2	1	2	4	BIO3207	Industrial Biotechnology	3	1	0	4
BIO3121	Plant Tissue Culture	2	1	2	4	BIO3220	Organic Farming	2	1	2	4
BIO3107	Medical Biotechnology	2	1	2	4	BIO3208	Bioinformatics	2	1	2	4
BIO3122	Ethical Issue and IPR	3	1	0	4	BIO3209	Nano Biotechnology	2	1	2	4
BIO3190	GLP and Biosafety	3	1	0	4	BIO3290	Project Based Learning – II	0	0	8	4
		12	5	6	20			9	4	14	20
Total Contact Hours (L + T + P)		23				Total Contact Hours (L + T + P)		27			
SEVENTH SEMESTER						EIGHTH SEMESTER (WITH REAESRCH)					
BIO4120	Omics Technology	3	1	0	4	BIO4270	Major Project	0	0	24	12
BIO4107	Biostatistics	2	1	2	4	BIO4220	Functional Foods and Nutraceuticals	4	0	0	4
BIO4121	Bioenergy and Bioresource Technology	3	1	0	4	BIO4271	Seminar	0	4	0	4
BIO4122	Model Systems in	2	1	2	4			4	4	24	20

	Biological Research										
BIO4190	Project Based Learning – III	0	0	8	4	Total Contact Hours (L + T + P)		32			
		10	4	12	20	EIGHTH SEMESTER (WITHOUT RESEARCH)					
Total Contact Hours (L + T + P)		26			BIO4220	Functional Foods and Nutraceuticals		4	0	0	4
					BIO4271	Seminar		0	4	0	4
					BIO4280	Bioprocess Technology		2	1	2	4
					BIO4281	Waste Management		3	1	0	4
					BIO4282	Microbial Diagnostics		2	1	2	4
							11	7	4	20	
					Total Contact Hours (L + T + P)						