

Bachelor of Science in Microbiology (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	BIO1290	Fundamentals of Microbiology	2	1	2	4
BIO1120	Diversity of Life	3	1	0	4	BIO1207	Fundamentals of Biotechnology	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					
Code	Course Name	L	T	P	C	Code	Course Name	L	T	P	C
BIO2115	Bacteriology	2	1	2	4	BIO2220	Bioanalytical Techniques	2	1	2	4
BIO2108	Molecular Biology	2	1	2	4	BIO2215	Food & Dairy Microbiology	2	1	2	4
BIO2107	Biochemistry	2	1	2	4	BIO2216	Virology	2	1	2	4
CHY2170	Scientific Writing	2	0	0	2	BIO2217	Microbial Genetics	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
		12	5	6	20			10	4	12	20
Total Contact Hours (L + T + P)		23				Total Contact Hours (L + T + P)		26			
FIFTH SEMESTER						SIXTH SEMESTER					
BIO3115	Environmental Microbiology	2	1	2	4	BIO3215	Medical Microbiology	2	1	2	4
BIO3116	Industrial Microbiology	2	1	2	4	BIO3216	Agricultural and Soil Microbiology	2	1	2	4
BIO3117	Computational Biology	2	1	2	4	BIO3217	Nano Microbiology	2	1	2	4
BIO3123	Molecular Cloning and Genetic Engineering	2	1	2	4	BIO3218	Mycology	2	1	2	4
BIO3190	GLP and Biosafety	3	1	0	4	BIO3290	PROJECT BASED LEARNING – II	0	0	8	4
		11	5	8	20			8	4	16	20
Total Contact Hours (L + T + P)		24				Total Contact Hours (L + T + P)		28			
SEVENTH SEMESTER						EIGHTH SEMESTER (WITH RESEARCH)					
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 Biological Research	2	1	2	4		4	4	24	20	
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)		22			