

SEMESTER-WISE COURSE STRUCTURE

SEMESTER I

S.No.	Course Category	Course Name	L	T	P	Credits
1	Theory	General Bacteriology & Microbial Physiology	4	0	0	4
2	Blended	Cell Biology & Advanced Immunology	3	0	2	5
3	Theory	Virology: Pathogenesis & Diagnosis	4	0	0	4
4	Theory	Medical Mycology & Parasitology	3	0	0	3
5	Theory	Molecular Biology & Microbial Genetics	3	0	1	4
6	Theory	Bioethics, Biosafety & IPR	2	0	0	2
Total			20	0	2	22

SEMESTER II

S.No.	Course Category	Course Name	L	T	P	Credits
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1	Blended	Systemic Bacteriology & Clinical Syndromes	4	0	1	5
2	Theory	Antimicrobial Agents & Resistance Mechanisms	3	0	0	3
3	Theory	Research Methodology & Biostatistics	3	0	0	3
4	Blended	Molecular Diagnostics & Omics Technologies	3	0	1	4
5	Theory	Electives From Bucket I	3	0	0	3
6	Theory	Scientific Writing & Communication	2	0	0	2
Total			18	0	2	20

SEMESTER III

S.No.	Course Category	Course Name	L	T	P	Credits
1	Theory	Clinical Virology & Emerging Infectious Diseases	3	0	0	3
2	Blended	Industrial Microbiology & Fermentation Tech	4	0	1	5

3	Blended	Hospital Infection Control & Patient Safety	3	0	1	4
4	Theory	Vaccinology & Immunotherapeutics	3	0	0	3
5	Theory	Microbial Genomics & Bioinformatics	3	0	0	3
6	Theory	Electives from Bucket II	3	0	0	3
Total			19	0	2	21

SEMESTER IV

S.No.	Course Category	Course Name	L	T	P	Credits
1.	Core	Dissertation & Viva	0	0	15	15
TOTAL			0	0	15	15

TOTAL CREDITS (SEM I + II + III + IV) = 80

ELECTIVE BUCKETS (5 Options Each)

Elective Bucket I (Semester II)	Elective Bucket II (Semester III)
1. Public Health Microbiology & Epidemiology	1. Drug Discovery & Nanotherapeutics

2. Food Safety & Water Microbiology	2. Forensic Microbiology & Bioterrorism
3. Microbial Ecology & Metagenomics	3. Automation in Clinical Microbiology
4. Pharmaceutical Microbiology	4. Recombinant DNA Technology & Gene Therapy
5. Environmental Biotechnology & Bioremediation	5. Entrepreneurship in Bio-Diagnostics