

Curriculum 2025-26

MSc. Applied Microbiology

Category Credit Detail				
Sl.No.	Description	Credits	Maximum Credit	
1	DC - Discipline Core	28	28	
2	DE - Discipline Elective	21	21	
3	PI - Projects and Internship	20	20	
4	OE - Open Elective	6	6	
5	SE - Skill Enhancement	5	5	
Total Credits		80		

Discipline Core									
sl.no	Course Code	Course Title	Course Type	Ver sio n	L	T	P	J	Credits
1	PAMB501L	Advanced Microbiology	Theory Only	1.0	3	0	0	0	3.0
2	PAMB502L	Microbial Physiology and Metabolism	Theory Only	1.0	3	0	0	0	3.0
3	PAMB502P	Microbial Physiology and Metabolism Lab	Lab Only	1.0	0	0	2	0	1.0
4	PAMB503L	Immunology and Immunotechnology	Theory Only	1.0	3	0	0	0	3.0
5	PAMB503P	Advanced Microbiology and Immunology Lab	Lab Only	1.0	0	0	2	0	1.0
6	PAMB504L	Molecular Biology	Theory Only	1.0	3	0	0	0	3.0
7	PAMB505L	rDNA Technology	Theory Only	1.0	3	0	0	0	3.0
8	PAMB505P	Molecular Biology and rDNA Technology Lab	Lab Only	1.0	0	0	2	0	1.0
9	PAMB506L	Analytical Techniques and QC	Theory Only	1.0	3	0	0	0	3.0
10	PAMB507L	Industrial Microbiology	Theory Only	1.0	3	0	0	0	3.0
11	PAMB507P	Industrial Microbiology Lab	Lab Only	1.0	0	0	2	0	1.0
12	PBIT507L	Biostatistics and Research Methodology	Theory Only	1.0	3	0	0	0	3.0

Discipline Elective									
sl.no	Course Code	Course Title	Course Type	Ver sio n	L	T	P	J	Credits
1	PAMB601L	Environmental Microbiology	Theory Only	1.0	3	0	0	0	3.0
2	PAMB602L	Diagnostic Microbiology	Theory Only	1.0	3	0	0	0	3.0
3	PAMB603L	Probiotics Technology	Theory Only	1.0	3	0	0	0	3.0
4	PAMB604L	GxPs, Industrial Standards and Guidelines	Theory Only	1.0	3	0	0	0	3.0
5	PAMB605L	Pharmaceutical Biotechnology	Theory Only	1.0	3	0	0	0	3.0
6	PAMB606L	Soil and Agricultural Microbiology	Theory Only	1.0	3	0	0	0	3.0
7	PAMB607L	Marine Microbiology	Theory Only	1.0	3	0	0	0	3.0
8	PAMB608L	Bio Business and Entrepreneurship	Theory Only	1.0	3	0	0	0	3.0
9	PAMB609L	Medical Microbiology	Theory Only	1.0	3	0	0	0	3.0
10	PAMB610L	Fungal Technology	Theory Only	1.0	3	0	0	0	3.0
11	PAMB611L	Food Microbiology	Theory Only	1.0	3	0	0	0	3.0
12	PAMB612L	Virology	Theory Only	1.0	3	0	0	0	3.0
13	PAMB613L	Vaccinology	Theory Only	1.0	3	0	0	0	3.0

Discipline Elective									
14	PBIT506L	Bioinformatics	Theory Only	1.0	2	0	0	0	2.0
15	PBIT506P	Bioinformatics Lab	Lab Only	1.0	0	0	2	0	1.0
16	PBIT613L	Nanobiotechnology	Theory Only	1.0	3	0	0	0	3.0
17	PBMG607L	Artificial Intelligence in Healthcare	Theory Only	1.0	3	0	0	0	3.0

Projects and Internship									
sl.no	Course Code	Course Title	Course Type	Ver sio n	L	T	P	J	Credits
1	PAMB698J	Internship I/ Dissertation I	Project	1.0	0	0	0	0	4.0
2	PAMB699J	Internship II/ Dissertation II	Project	1.0	0	0	0	0	12.0
3	PSET695J	Project Work	Project	1.0	0	0	0	0	4.0

Open Elective									
sl.no	Course Code	Course Title	Course Type	Ver sio n	L	T	P	J	Credits
1	CFOC176M	Computer Aided Drug Design	Online Course	1.0	0	0	0	0	2.0
2	CFOC177M	Drug Delivery: Principles and Engineering	Online Course	1.0	0	0	0	0	3.0
3	CFOC191M	Forests and their Management	Online Course	1.0	0	0	0	0	3.0
4	CFOC196M	Computational Systems Biology	Online Course	1.0	0	0	0	0	3.0
5	CFOC197M	Bio-Informatics: Algorithms and Applications	Online Course	1.0	0	0	0	0	3.0
6	CFOC240M	Interactomics : Basics and Applications	Online Course	1.0	0	0	0	0	3.0
7	CFOC255M	Applied Environmental Microbiology	Online Course	1.0	0	0	0	0	3.0
8	CFOC321M	Essentials of Biomolecules : Nucleic Acids and Peptides	Online Course	1.0	0	0	0	0	3.0
9	CFOC384M	Entrepreneurship Essentials	Online Course	1.0	0	0	0	0	3.0
10	CFOC390M	Twentieth Century Fiction	Online Course	1.0	0	0	0	0	3.0
11	CFOC397M	Intellectual Property	Online Course	1.0	0	0	0	0	3.0
12	CFOC398M	English Language for Competitive Exams	Online Course	1.0	0	0	0	0	3.0
13	CFOC399M	English Literature for competitive Exams	Online Course	1.0	0	0	0	0	2.0
14	CFOC448M	Applied Ergonomics	Online Course	1.0	0	0	0	0	3.0
15	CFOC494M	Quality Design And Control	Online Course	1.0	0	0	0	0	3.0
16	CFOC575M	Wildlife Ecology	Online Course	1.0	0	0	0	0	3.0
17	CFOC651M	Psychology of Stress, Health and Well-being	Online Course	1.0	0	0	0	0	3.0
18	CFOC676M	Environmental Geosciences	Online Course	1.0	0	0	0	0	3.0
19	CFOC677M	Food Science and Technology	Online Course	1.0	0	0	0	0	3.0
20	CFOC685M	Comprehensive Molecular Diagnostics and Advanced Gene Expression Analysis	Online Course	1.0	0	0	0	0	3.0
21	CFOC686M	Enzyme Sciences and Technology	Online Course	1.0	0	0	0	0	3.0
22	CFOC800M	Biochemistry	Online Course	1.0	0	0	0	0	3.0
23	PBMG604L	Reproductive Genetics	Theory Only	1.0	3	0	0	0	3.0

Skill Enhancement									
sl.no	Course Code	Course Title	Course Type	Ver sio n	L	T	P	J	Credits
1	PENG501P	Technical Report Writing	Lab Only	1.0	0	0	4	0	2.0
2	PSTS501P	Qualitative Skills Practice	Soft Skill	1.0	0	0	3	0	1.5
3	PSTS502P	Quantitative Skills Practice	Soft Skill	1.0	0	0	3	0	1.5