

Program: B.Sc. Microbiology- 2024-25.
School of Sciences
Thematic Distribution
Course Clusters

Name of the Programme	Category	Semester	Course code	Course Name	Credits
B.Sc (Hons.) Microbiology	Core Microbiology and Biological Sciences	I	BSMB 101	Fundamentals of Biochemistry	4
		I	BS/MB 102	General Microbiology	4
		I	BSMB 103	Cell Structure & Dynamics	4
		I & III	BSMB 201, 301	Molecular Biology – I & II	4
		II	BSMB 202	Immunology	4
		IV	BSMB 401	Genetic engineering	4
		III	BSMB 302	Plant tissue culture	4
		VI	BSMB 601	Animal tissue culture	4
		VII	DSE V A	Medical microbiology	3
		VII	DSE V B	Medical biotechnology	3
		VII	BS/MB 701	Drug designing	4
		VI	BSMB 602	Nanobiotechnology	3
		IV	BSMB 403	Enzymology	
		VI	DSE IV	Frontiers in Biotechnology and Microbiology	3
		VI	BSMB 601	Microbial Diversity	4
	Applied and Analytical Sciences	I	SEC I	Bioinstrumentation	3
		II	BSMB 203	Analytical Chemistry	4
		II	SEC II	Basics of Forensic Sciences	3
		V	BSMB 501	Bioinformatics	4
		VIII	DSE VII	Food and dairy microbiology	3
		VI	DSE VI	Industrial microbiology	3
		VII	BSMB 702	Research Methodology	3
		IV	SEC IV	Bioethics and Biosafety	3
	Research and analytical skills	VII	BSMB 702	Research Methodology	3
		II	BSMB 203	Analytical Chemistry	4
		IV	BSMB 402	Bioprocess Engineering	4
		I	GE I A	Animal Diversity	3



UNIVERSITY
Gwalior • MP • India

"CELEBRATING DREAMS"

	Botany/Zoology and Comparative Anatomy	II	GE II A	General and Comparative Anatomy of Vertebrates	3
		III	BSMB 303	Genetics	4
		IV	GE IVA	Plant Physiology	3
		IV	GE IV B	Animal Physiology	3
	Languages and Communication	I	AEC I	English	2
		II	AEC II	Hindi	2
	Environmental and Sustainability Sciences	I	VAC I	Environmental Science	2
		III	VAC III	Disaster management	2
		IV	VAC IV	Sustainable development & Ecology	2
		VI	DSE II	Waste management	3
	Advanced Biotechnology	IV	BSMB 401	Recombinant DNA Technology	4
		V	BSMB 503	Genomics and Proteomics	4
		VI	DSE IV	Molecular Diagnostics	3
		VIII	DSE VII	Pharmaceutical Biotechnology	3