

Department of Microbiology
School of Biological Sciences
Dr. Harisingh Gour Vishwavidyalaya (A Central University), Sagar, MP.
470003. India

Departmental IQAC Profile

Criterion 1: Curricular Aspects

Admission:

Currently, the department of Microbiology offers admission in following courses.

Program	Intake	Eligibility
PG	19	Candidates should have passed 10+2+3 or equivalent examination with graduation in life sciences.
PhD	Variable (as per available seats)	Master's degree in the concerned/relevant/allied subject with at least 55% marks in aggregate or its equivalent CGPA or equivalent Grade.

Syllabus:

MSc Microbiology (Current syllabus: 2021)

I Semester

Core Courses			
S.No.	Course Code	Name of the Course	Credit
1.	MIC CC 121	General Microbiology and Microbial Diversity (Theory)	4
2.	MIC CC 122	General Microbiology and Microbial Diversity (Practical)	2
3.	MIC CC 123	Principles of Biochemistry(Theory)	4
4.	MIC CC 124	Principles of Biochemistry(Practical)	2
5.	MIC CC 125	Bioinstrumentation, Bioinformatics and Biostatistics (Theory)	4
6.	MIC CC 126	Bioinstrumentation, Bioinformatics and Biostatistics (Practical)	2
7.	MIC CC 127	Enzyme Technology (Theory)	4
8.	MIC CC 128	Enzyme Technology (Practical)	2

II Semester

Core Courses			
S. No.	Course Code	Name of Course	Credit
1.	MIC CC 221	Microbial Physiology and Metabolism (Theory)	4
2.	MIC CC 222	Microbial Physiology and Metabolism (Practical)	2
3.	MIC CC 223	Industrial Microbiology (Theory)	4
4.	MIC CC 224	Industrial Microbiology (Practical)	2
Elective Courses			
5.	MIC EC 221	Environmental Microbiology (Theory)	3
6.	MIC EC 222	Environmental Microbiology (Practical)	1
7.	MIC EC 223	Methods in Molecular Biology (Theory)	3
8.	MIC EC 224	Methods in Molecular Biology (Practical)	1
Open Elective			
9.	MIC OE 221	World of Microbes (Theory)	2

III Semester

Core Courses			
S. No.	Course Code	Name of Course	Credit
1.	MIC CC 321	Medical Microbiology and Immunology (Theory)	4
2.	MIC CC 322	Medical Microbiology and Immunology (Practical)	2
3.	MIC CC 323	Microbial Genetics and Molecular Biology (Theory)	4
4.	MIC CC 324	Microbial Genetics and Molecular Biology (Practical)	2
Elective Courses			
5.	MIC EC 321	Food and Dairy Microbiology (Theory)	3
6.	MIC EC 322	Food and Dairy Microbiology (Practical)	1
7.	MIC EC 323	Optical Probes (Theory)	3
8.	MIC EC 324	Optical Probes (Practical)	1
Open Elective			
9.	MIC OE 321	Microbial Diagnosis in Health Clinic	2

IV Semester

Core Course			
S. No.	Course Code	Name of Course	Credit
1.	MIC CC 421	Project Work / Dissertation on any Microbiology related aspect	16

PhD course work (Current syllabus: 2021)

Paper	Code	Title	Credits
Paper 1	MIC CC 141	Research Methodology	4
Paper 2	MIC CC 142	Research and Publication Ethics (RPE)	2
Paper 3	MIC CC 143	Review of Published Research	8
Paper 4	MIC EC 141	Techniques in Microbiology	2
		Total Credit	16

Previous syllabus (2013 MSc Microbiology)

I Semester (July 2013- Nov. 2013)						
	Course	Title	L	T	P	C
Core	MIC C121	Bacteriology	2	0	2	4
	MIC C122	Virology	2	0	2	4
	MIC C123	Tools & Techniques in Microbiology	2	0	2	4
	MIC C124	Mycology & Phycology	2	0	2	4
Elective	MIC E 121	Microbial Diversity	2	0	1	3
	MIC E 122	Microbial Taxonomy	2	0	1	3
II Semester (Dec. 2013- April 2014)						
Core	MIC C 221	Biochemistry	2	0	2	4
	MIC C222	Principles of Bioinstrumentation, Bioinformatics & Biostatistics	2	0	2	4
	MIC C223	Microbial Physiology	2	0	2	4
	MIC C224	Environmental Microbiology	2	0	2	4
Elective	MIC E 221	Enzyme Technology	2	0	1	3
	MIC E 222	Biodegradation & Biodeterioration	2	0	1	3
III Semester (July 2014- Nov. 2014)						
Core	MIC C321	Microbial Genetics	2	0	2	4
	MIC C322	Medical Microbiology	2	0	2	4
	MIC C323	Food and Dairy Microbiology	2	0	2	4
	MIC C324	Industrial Microbiology	2	0	2	4
Elective	MIC E 321	Fermentation Technology	2	0	1	3
	MIC E 322	Food Technology	2	0	1	3
IV Semester (Dec. 2014- April 2015)						
Core	MICC 421	Project on any Microbiology related aspect	0	6	6	12
	MIC E 421	IPR and Patent Laws	2	0	1	3
	MIC E 422	Methods in Molecular Biology	2	0	1	3

Previous syllabus (2013 PhD course work):

Paper	Title	Theory Credits	Practicals Credits
I Semester Examination			
MIC C 141	Methods in Microbiology	2	2
MIC C 142	Biochemistry and Molecular Biology	2	2
MIC C 143	Instrumental Analysis	2	2
MIC C 144	Fundamentals of Research Methodology	2	2
MIC C 145	Project work related to review writing	8	
		24	
II Semester Examination			
MIC C 241	Microbial Diversity and Taxonomy	2	2
MIC C 242	Fermentation and Bioprocess Technology	2	2
MIC C 243	Bioinformatics	2	2
MIC C 244	Methods in Enzymology	2	2
MIC C 245	Practical based	8	
Total		24	
Credits through Research		32	
Total Credits		80	