



KURUKSHETRA UNIVERSITY KURUKSHETRA

[Established by the State Legislature Act XII of 1956]

('A⁺' Grade, NAAC Accredited)

AQAR-2020-21

1.2.2 : Scheme of Examination for the programmes in the Department/Institute of

Microbiology

DEPARTMENT OF MICROBIOLOGY, K.U., KURUKSHETRA

**Scheme of examinations and syllabus for M.Sc. Microbiology under CBCS-LOCF w.e.f.
2020-21 in phased manner**

Semester I

Paper Code	Title of Paper	Type of Paper	Hours/ Week	Credits	Internal Assessment	External Marks	Total Marks	Duration of exam (hrs)
MMB-101	Microbial World	Core	4	4	20	80	100	3
MMB-102	Microbial Genetics & Molecular Biology I	Core	4	4	20	80	100	3
MMB-103	Immunology & Virology	Core	4	4	20	80	100	3
MMB-104	Microbial Physiology Metabolism & Biochemistry	Core	4	4	20	80	100	3
MMB-105	Lab Course-I	Core	8	4	20	80	100	6
MMB-106	Lab Course -II	Core	8	4	20	80	100	6
Total				24	600			

Semester II

Paper Code	Title of Paper	Type of Paper	Hours/ Week	Credits	Internal Assessment	External Marks	Total Marks	Duration of exam (hrs)
MMB-201	Biophysical & Biochemical Techniques	Core	4	4	20	80	100	3
MMB-202	Microbial Genetics & Molecular Biology II	Core	4	4	20	80	100	3
MMB-203	Medical Lab. Technology	Core	4	4	20	80	100	3
MMB-204	Environmental Microbiology	Core	4	4	20	80	100	3
MMB-205	Credit Seminar	Core	1	1	-	-	25	1
MMB-206	General Microbiology /MOOCs/Swayam portal	Open [#] Elective	2	2	10	40	50	3
MMB-207	Lab Course-III	Core	8	4	20	80	100	6
MMB-208	Lab Course-IV	Core	8	4	20	80	100	6
Total				27	675			

Project training for 2 months in various research institutes/industries etc. during Summer Vacations during break between 2nd and 3rd semester

#This paper is meant for M.Sc. students of any department of any faculty of KUK other than Microbiology. Microbiology students will opt for 'open elective' from some other department of any faculty of KUK or any MOOC course available on Swayam portal

Semester III

Paper Code	Title of Paper	Type of Paper	Hours/ Week	Credits	Internal Assessment	External Marks	Total Marks	Duration of exam (hrs)
MMB-301	Recombinant DNA Technology	Core	4	4	20	80	100	3
MMB-302	Microbial Biotechnology & Industrial Microbiology	Core	4	4	20	80	100	3
MMB-303	Microbial Pathogenicity	Core	4	4	20	80	100	3
MMB-304A	Agriculture Microbiology	Elective * (Any one of the two)	4	4	20	80	100	3
MMB-304B	Basics of Bioinformatics							
MMB-305	Credit Seminar	Core	1	1	-	-	25	1
MMB-306	Applied Microbiology/ MOOCs	Open [#] Elective	2	2	10	40	50	3
MMB-307	Lab course-V	Core	8	4	20	80	100	6
MMB-308	Lab course-VI	Core	8	4	20	80	100	6
Total				27	675			

*Students will opt for one paper out of MMB-304A and MMB-304B

Semester IV

Paper Code	Title of Paper	Type of Paper	Hours/ Week	Credits	Internal Assessment	External Marks	Total Marks	Duration of exam (hrs)
MMB-401	Biostatistics and Computers	Core	4	4	20	80	100	3
MMB-402	Food & Dairy Microbiology	Core	4	4	20	80	100	3
MMB-403	Seminar based on Project Report	Core	2	2	--	50	50	1
MMB-404A	Intellectual Property Rights & Entrepreneurship	Elective * (Any one of the two)	4	4	20	80	100	3
MMB-404B	Computational Biology							
MMB-405	Lab Course-VII	Core	8	4	20	80	100	6
MMB-406	Project Training Report & Viva	Core	12	6	--	150	150	6
Total				24	600			
Grand Total (Semester I-IV)					2550			

*Students will opt for one paper out of MMB-404A and MMB-404B

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