



# **UNIVERSITY OF CALCUTTA**

## **Notification No. CSR/57/2024**

It is notified for information of all concerned that in terms of the provisions of Section 54 of the Calcutta University Act, 1979, (as amended), and, in the exercise of her powers under 9(6) of the said Act, the Vice-Chancellor has, by an order dated 01.07.2024 approved some amendments in the paper code of semesters VI, VII, VIII of Microbiology (4-year Honours & Honours with Research and, Three-year MDC), under CCF 2022, under this University. The amended version is laid down in the accompanying pamphlet.

**The above shall take immediate effect.**

**SENATE HOUSE**

**Kolkata-700073**

**14.08.2024**

  
Prof.(Dr.) Debasis Das

**Registrar**

**Semester-wise undergraduate courses in Microbiology (NEP-2020 structure)  
(For 4-year Honours Course)**

Semester	Course Type	Paper code (Course code)	Credit distribution	Course name
I	IDC†	MCB-IDC	2 TH + 1 TU	Introduction and Scope of Microbiology
	Core	MCB-H-CC-1-1 (CC101)*	3 TH + 1 P	Introduction to Microbiology and Microbial Diversity
	SEC	MCB-H-SEC-1-1 (SEC101)	4 TH + 0 P	Food Fermentation Techniques and Packaging
II	IDC†	MCB-IDC	2 TH + 1 TU	Introduction and Scope of Microbiology
	Core	MCB-H-CC-2-2 (CC102)*	3 TH + 1 P	Bacteriology
	SEC	Offered centrally by the university	4 TH + 0 P	AI for everyone
III	IDC†	MCB-IDC	2 TH + 1 TU	Introduction and Scope of Microbiology
	Core	MCB-H-CC-3-3 (CC201)*	3 TH + 1 P	Biomolecules and Bioenergetics
	Core	MCB-H-CC-4-3 (CC202)	3 TH + 1 P	Microbial Physiology and Metabolism
	SEC	MCB-H-SEC-3-3 (SEC201)	4 TH + 0 P	Biofertilizers and Biopesticides
IV	Core	MCB-H-CC-5-4 (CC203)	3 TH + 1 P	Molecular Biology
	Core	MCB-H-CC-6-4 (CC204)*	3 TH + 1 P	Microbiological Analysis of Air and Water
	Core	MCB-H-CC-7-4 (CC205)	3 TH + 1 P	Environmental Microbiology
	Core	MCB-H-CC-8-4 (CC206)	3 TH + 1 P	Food and Dairy Microbiology
V	Core	MCB-H-CC-9-5 (CC301)	3 TH + 1 P	Virology
	Core	MCB-H-CC-10-5 (CC302)	3 TH + 1 P	Microbial Genetics
	Core	MCB-H-CC-11-5 (CC303)	3 TH + 1 P	Industrial Microbiology
	Core	MCB-H-CC-12-5 (CC304)	3 TH + 1 P	Recombinant DNA Technology
VI	Core	MCB-H-CC-13-6 (CC305)	3 TH + 1 P	Microbial Biotechnology and Enzymology
	Core	MCB-H-CC-14-6 (CC306)	3 TH + 1 P	Bacterial Pathogenesis
	Core	MCB-H-CC-15-6 (CC307)	3 TH + 1 P	Cell Biology
	Internship <sup>1</sup>	MCB-INT-TU	0 TH + 3 TU	To be conducted during the semester
VII	Core	MCB-H-CC-16-7 (CC401)	3 TH + 1 P	Fungal, Protozoal and Viral Pathogenesis
	Core	MCB-H-CC-17-7 (CC402)	3 TH + 1 P	Instrumentation and Biotechniques
	Core	MCB-H-CC-18-7 (CC403)	3 TH + 1 TU	Essential Tools in Biological Research
	Core	MCB-H-CC-19-7 (CC404)	3 TH + 1 P	Immunology
	DSC	MCB-H-DSC-1-7 (DSC401) [for Non-research students]	3 TH + 1 P	Microbes in Sustainable Agriculture and Development

<b>VIII</b>	Core	MCB-H-CC-20-8 (CC405)	3 TH + 1 TU	Ecology and Biodiversity
	Core	MCB-H-CC-21-8 (CC406)	3 TH + 1 P	Genetics and Genomics
	Core	MCB-H-CC-22-8 (CC407)	3 TH + 1 P	Plant Pathology
	DSC	MCB-H-DSC-2-8 (DSC402) [for Non-research students]	3 TH + 1 P	Advances in Microbiology
	DSC	MCB-H-DSC-3-8 (DSC403) [for Non-research students]	3 TH + 1 TU	Medical Biotechnology

\*Courses offered in minor and multidisciplinary combinations also, <sup>†</sup>IDC is to be taken in any one of the first three semesters only, <sup>‡</sup>Internship can be conducted during the entire duration of any semester to be eligible for exit after even semesters

**(For 3-year Multidisciplinary course)**

Semester	Course Type	Paper code (Course code)	Credit distribution	Course name
<b>I</b>	IDC <sup>†</sup>	MCB-MDC-IDC (MCB-IDC)	2 TH + 1TU	Introduction and Scope of Microbiology
	Core	MCB-MDC-CC-1-1 (CC101)*	3 TH + 1 P	Introduction to Microbiology and Microbial Diversity
	SEC <sup>#</sup>	MCB-MDC-SEC (SEC101)	4 TH + 0 P	Food Fermentation Techniques and Packaging
<b>II</b>	IDC <sup>†</sup>	MCB-MDC-IDC (MCB-IDC)	2 TH + 1TU	Introduction and Scope of Microbiology
	SEC <sup>#</sup>	MCB-MDC-SEC (SEC101)	4 TH + 0 P	Food Fermentation Techniques and Packaging
	Core	MCB-MDC-CC-2-2 (CC102)*	3 TH + 1 P	Bacteriology
<b>III</b>	IDC <sup>†</sup>	MCB-MDC-IDC (MCB-IDC)	2 TH + 1TU	Introduction and Scope of Microbiology
	SEC <sup>#</sup>	MCB-MDC-SEC (SEC101)	4 TH + 0 P	Food Fermentation Techniques and Packaging
	Core	MCB-MDC-CC-3-3 (CC201)*	3 TH + 1 P	Biomolecules and Bioenergetics
	Minor	MCB-MDC-MN-1-3 (CC101)	3 TH + 1 P	Introduction to Microbiology and Microbial Diversity
<b>IV</b>	Core	MCB-MDC-CC-4-4 (CC204)*	3 TH + 1 P	Microbiological Analysis of Air and Water
	Core	MCB-MDC-CC-5-4 (MDC-CC205)*	3 TH + 1 P	Microbial Genetics and Molecular Biology
	Minor	MCB-MDC-MN-2-4 (CC102)	3 TH + 1 P	Bacteriology
<b>V &amp; VI</b>	Core <sup>‡</sup>	MCB-MDC-CC-6-5/6 (MDC-CC301)*	3 TH + 1 P	Genetic Engineering and Biotechnology
	Core <sup>‡</sup>	MCB-MDC-CC-7-5/6 (MDC-CC302)	3 TH + 1 P	Microbial Metabolism
	Core <sup>‡</sup>	MCB-MDC-CC-8-5/6 (MDC-CC303)	3 TH + 1 P	Medical Microbiology and Immunology
	Minor (Semester V only)	MCB-MDC-MN-3-5 (CC201)	3 TH + 1 P	Biomolecules and Bioenergetics
	Minor (Semester V only)	MCB-MDC-MN-4-5 (CC204)	3 TH + 1 P	Microbiological Analysis of Air and Water
	Minor (Semester VI only)	MCB-MDC-MN-5-6 (MDC-CC205)	3 TH + 1 P	Microbial Genetics and Molecular Biology
	Minor (Semester VI only)	MCB-MDC-MN-6-6 (MDC-CC301)	3 TH + 1 P	Genetic Engineering and Biotechnology

\*Courses offered in both major and minor combinations, <sup>†</sup>IDC and <sup>#</sup>SEC courses are to be taken in any one of the first three semesters only, <sup>‡</sup>Internship to be conducted during the entire duration of any of semester, <sup>‡</sup>Students will have to choose one course in semester V and two in semester VI or vice versa, depending on the order of the selected major subject