

# Bachelor of Science (B.Sc) Microbiology (Hons)

**Admission  
2024-25**

## About the program

Microbiology is a multi-disciplinary science that explore the biology of microbes in various aspects of human life. Microbiological research provides basic as well as application related knowledge of the microorganisms. It imparts in-depth understanding in different areas of microbiology to fulfil the gap between industry & academia. The learner of microbiology will know the mechanisms, ecology, interactions, control, applications, and many interesting facets of microbes. A comprehensive perception on application of microbiology, which expands from food-beverage to pharma-industry make our students industry ready. It is one of the most challenging and rapidly changing exciting areas of science.



More about the Department  
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### Key Highlights of the Program

- High level teaching focused on outcome-based teaching learning
- Well equipped laboratories with all modern amenities
- Individual Research projects
- International presentations and publications by the students
- Interdisciplinary learning with up to date highly competent syllabus
- Department of science & technology (DST) sponsored Department of Biosciences, MUJ for 5 years under “FIST” program (1.5 Crores)
- Ministry of Science & Technology, DST supported LAB under the scheme, “Promotion of University Research and Scientific Excellence (PURSE)”, Government of India

### Unique Research and Lab Facilities

- Structural Biology and Bioinformatics
- Environmental Biotechnology
- Microbial Technology Lab
- Cancer Research Lab (CRL)
- Biochemistry & Molecular Biology Lab
- Plant Tissue Culture Lab

### Career Opportunities

- Immense scope due to its involvement in various fields such as pharmacy, medicine, clinical research, agriculture, dairy industry, water industry, nanotechnology & chemical technology.
- Govt and corporate opportunities as research assistant, food, industrial or environmental microbiologists, quality assurance technologists, sales or technical representative, clinical research, medical technologists, biomedical scientist, clinical research associate.
- Students can also pursue higher education in research & development.

### Prominent Recruiters

- ZenOnco
- LiDo Learning
- Organica Biotech Pvt. Ltd.
- BYJU'S
- Jaro Education
- Delta X
- Accenture
- CSIRO- Commonwealth Scientific and Industrial Research Organisation, Australia
- 3B BlackBio Dx Limited

### The MUJ EDGE (Why MUJ)

- Best in-class infrastructure, including the state-of-the-art research facilities and a modern digital library
- NAAC A+, AICTE, and UGC Accredited Institution
- Faculty members are well known microbiologists
- Actively involved in the microbiology teaching and research.
- Well-developed labs provide world class learning experience along with the guided projects.
- Students are trained to lead small research and work in advanced microbiology labs individually or in a team.
- Biotech and Enviro Clubs

### National and International Collaborations

Collaborations with leading research lab of Government of India and overseas.

### Fee structure

Tuition fee (p.a.)	Registration Fee (One Time)	Caution Deposit Refundable (One Time)	Total Course Fees (including Caution Deposit)
97,000	10,000	10,000	3,11,000

(International - USD, Total Fee for 3 Years - 7,500)

### Eligibility

The candidate must have passed 10+2 from recognized board or equivalent qualification as recognized by Association of Indian Universities (AIU) or other competent body with science and/or computer science subjects, with minimum 50% marks in aggregate

## Curriculum (Only Scheme)

Year	FIRST SEMESTER					SECOND SEMESTER						
	Course Code	Course Name	L	T	P	C	Course Code	Course Name	L	T	P	C
I	BT1101	Diversity of Lower Plants	2	1	0	3	BT1201	Mycology and Plant Pathology	2	1	0	3
	BT1102	Fundamentals of Biotechnology	2	1	0	3	BT1202	Elements of Biochemistry	2	1	0	3
	BT1103	Cell Biology: Structure & Functions	2	1	0	3	BT1211	Cell Biology of Microorganisms	2	1	0	3
	BT1130	Botany Laboratory- I	0	0	2	1	BT1212	Microbial Nutrition and Growth	2	1	0	3
	BT1131	Biotechnology Laboratory-I	0	0	4	2	BT1232	Cell biology and Biochemistry Laboratory	0	0	4	2
	CA1170	Fundamentals of Computer	1	1	0	2	BT1233	Microbiology Laboratory-II	0	0	4	2
	CA1175	Fundamentals of Computer lab	0	0	2	1	*****	GE-II (A)	2	1	0	3
	CY1003	Environmental Science	2	1	0	3	*****	GE-II (A) Lab	0	0	2	1
	LN1106	Communicative English	2	0	0	2	*****	GE-II (B)	2	1	0	3
	*****	GE - I	2	1	0	3	*****	GE-II (B) Lab	0	0	2	1
*****	GE - I Lab	0	0	2	1							
		<b>13</b>	<b>6</b>	<b>10</b>	<b>24</b>			<b>12</b>	<b>6</b>	<b>12</b>	<b>24</b>	
	<b>Total Contact Hours (L + T + P)</b>	<b>29</b>				<b>Total Contact Hours (L + T + P)</b>	<b>30</b>					
II	THIRD SEMESTER					FOURTH SEMESTER						
	BT2101	Fundamentals of Bioinformatics	2	1	0	3	BT2201	Introduction to Biotechniques	2	1	0	3
	BT2111	Microbial Genetics	3	1	0	4	BT2202	Fundamentals of Immunology	2	1	0	3
	BT2112	Virology	3	1	0	4	BT2203	Recombinant DNA Technology and Forensics	3	1	0	4
	BT2133	Biology Laboratory-III	0	0	4	2	BT2211	Food & Dairy Microbiology	2	1	0	3
	BT2134	Microbiology Laboratory-III	0	0	4	2	BT2212	Medical Microbiology	2	1	0	3
	BT2170	Industrial Visit	0	0	0	1	BT2232	Biology Laboratory-IV	0	0	4	2
	*****	GE - III (A)	2	1	0	3	BT2233	Microbiology Laboratory-IV	0	0	4	2
	*****	GE - III (A) Lab	0	0	2	1	*****	DSE - I	3	1	0	4
	*****	GE - III (B)	2	1	0	3	*****	Open Elective				3
*****	GE - III (B) Lab	0	0	2	1							
		<b>12</b>	<b>5</b>	<b>12</b>	<b>24</b>			<b>14</b>	<b>6</b>	<b>8</b>	<b>27</b>	
	<b>Total Contact Hours (L + T + P)</b>	<b>29</b>				<b>Total Contact Hours (L + T + P) + OE</b>	<b>28 + 3 = 31</b>					
III	FIFTH SEMESTER					SIXTH SEMESTER						
	BT3111	Industrial Microbiology	2	1	0	3	BT3201	Physiology of Living Systems	2	1	0	3
	BT3112	Microbiological Quality Control	2	1	0	3	BT3211	Bioprocess Technology	2	1	0	3
	BT3113	Environmental Microbiology	3	1	0	4	BT3212	Extremophiles	2	1	0	3
	BT3132	Microbiology Laboratory-V	0	0	4	2	BT3232	Biology Laboratory-VI	0	0	2	1
	BT3170	DSE-II - Project	0	0	18	6	BT3233	Microbiology Laboratory-VI	0	0	4	2
	*****	DSE - III (A)	2	1	0	3	*****	DSE - IV (A)	2	1	0	3
	*****	DSE - III (B)	2	1	0	3	*****	DSE - IV (B)	2	1	0	3
							*****	GE - IV	2	1	0	3
							*****	GE - IV Lab	0	0	2	1
						*****	Open Elective				3	
		<b>11</b>	<b>5</b>	<b>22</b>	<b>24</b>			<b>12</b>	<b>6</b>	<b>8</b>	<b>25</b>	
	<b>Total Contact Hours (L + T + P)</b>	<b>38</b>				<b>Total Contact Hours (L + T + P) + OE</b>	<b>26 + 3 = 29</b>					

## Admission Process



Application form initiated through our website  
[admissions.jaipur.manipal.edu](https://admissions.jaipur.manipal.edu)



Applicants must submit a completed application form with relevant documents within the due date.



Our counsellors will guide candidates through the admission process, which is as per regulatory requirements.



Please visit the FAQ section on our website to know more about the admission process.

## Admission Team Contact Details



## Hostel Details



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*(University Under Section 2(f) of the UGC Act)*

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