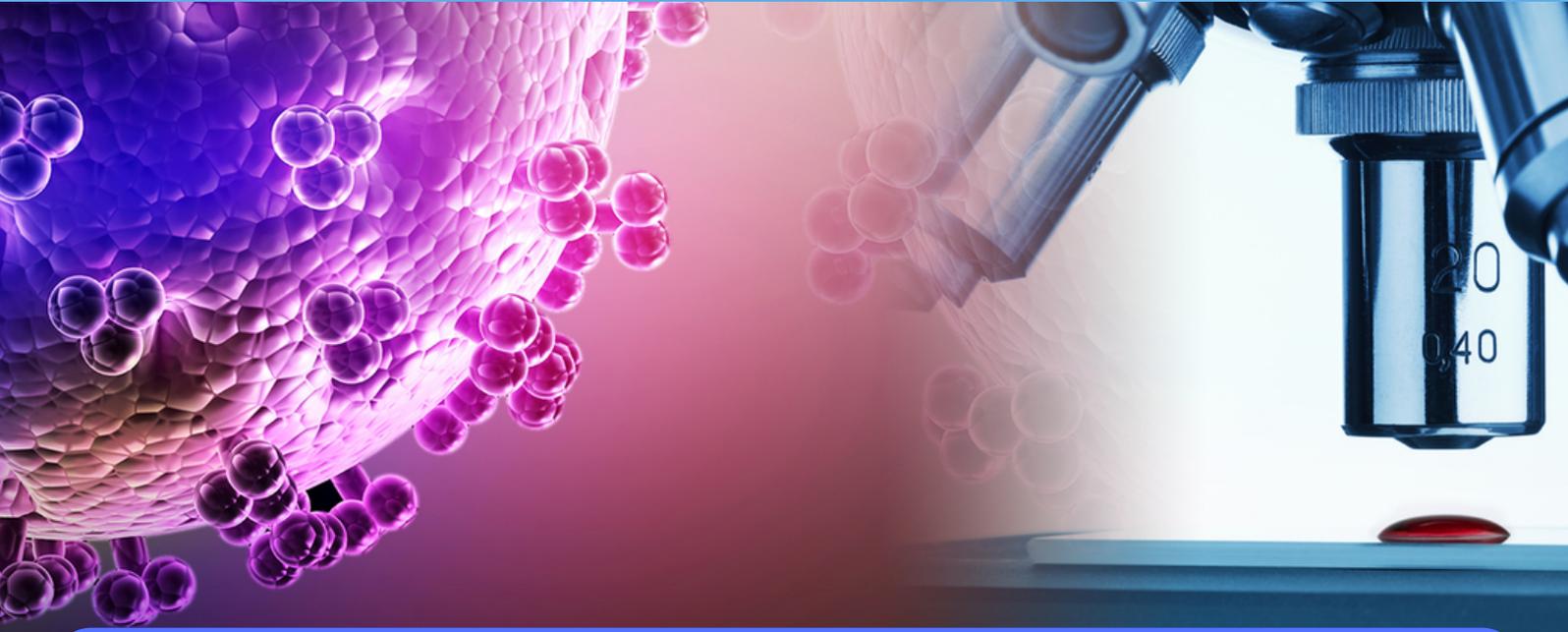




# CHHATRAPATI SHAHU JI MAHARAJ UNIVERSITY, KANPUR

Formerly Kanpur University



## MICROBIOLOGY PROGRAMMES

Microbiology programs at CSJM University, Kanpur equip students with the advanced knowledge of microorganisms and the hands-on training they'll need to join an industry that offers a variety of career paths or develops into fellow apt for higher studies

**Microbiology** is the study of organisms, most of which are too small to be seen with the naked eye, their interactions with humans, animals, plants, and the environment, and their applications. These microorganisms have vital significance in human development as they can be exploited for several beneficial aspects while many cause devastating damage and sufferings affecting health and causing destruction. Understanding the intercellular interactions and behavioral physiology of these microorganisms through basic sciences such as genetics, cellular & molecular biology as well as their biochemical analysis has burgeoned a number of applied microbiology fields such as Agriculture Microbiology, Industrial Microbiology, Medical and Clinical Microbiology, Infectious Immunobiology, Microbial Biotechnology, Pharmaceutical Microbiology, Food & Beverage Microbiology and Environmental Microbiology. Syllabus helps in qualifying CSIR-JRF/NET, and after completion of course students peruse research in various fields and different industries.

Department also offers PhD program in Microbiology.

# Vision

The department aspires to create opportunities and a world class infrastructures for students through multi-disciplinary education, research and training in the biological Sciences. Our vision is to become global leader in the field of Microbiology and to create excellence in research, promote innovation & encourage entrepreneurial activity and disseminating knowledge by providing inspirational learning to produce professional leaders for serving the society.

# Mission

01

To attain high standards in teaching and research in Microbiology and to become a desired destination for highly motivated students.

02

To awaken the young minds and discover their talents both in theoretical and practical Biological Sciences, through dedication to teach, commitment towards students and innovative multimedia instructional methods.

03

To provide an accommodative and facilitative environment for faculty members and students to flourish in research and development.

04

To provide a platform to keep abreast with latest developments in Microbiology, Biological Sciences and motivate the young minds for startup and entrepreneurship in this area.

05

To organize and sustain efficient operating systems in the Department of Microbiology for realization of our objectives as Institution of eminence and international standards.

06

To make our students future leaders and professionals and entrepreneurs in the field of Microbiology and Biological Sciences.

MISSION & VISION





EDUCATION

## INTEGRATED UNDER GRADUATE - POST GRADUATE PROGRAMME

The Microbiology program is designed to provide you with an extensive knowledge of the field. As a basic biological science, learn how microbiology provides some of the most accessible research tools for exploring the nature of life processes. As an applied biological science, see how microbiology deals with many important practical problems in medicine, agriculture, bioremediation and food industries. To get that applied experience, you will have opportunities to participate in laboratory learning, independent research projects with professors, summer internships and co-operative education programs.

### “ OFFERS

- **Year I:** Certificate Course in Microbial Techniques,
- **Year II:** Diploma in Microbial Technology
- **Year III:** B.Sc. Microbiology,
- **Year IV:** B.Sc. Microbiology (Hons.-With Research)
- **Year V:** M.Sc. Microbiology

# Integrated Undergraduate-Postgraduate Programme in Microbiology

## Five Years (10 Semesters) Programme Course Structure

### Semester-Wise Allocation

Year	Semester	Major Course					Minor Elective (Other Faculty) (As per University Guidelines)	Vocational/ Skill Development Course	Co-Curricular Course (As per University Guidelines)	Industrial Training/ Review/ Survey/ Research Project	Min. Credits (for the year)	Cumulative Minimum Credits Required for award of Certificate/ Diploma/ Degree
		Course I	Course II	Course III	Course IV	Course V						
1	I	L080101T Introduction to Microbiology  (4 credits) Marks: 100	L080102T Bacteriology, Virology and Mycology  (4 credits) Marks: 100	L080103T Microbial Techniques  (4 credits) Marks: 100	L080104P Practical Work  (6 credits) Marks: 100	-	IDC101T Atomic structure, bonding, general organic chemistry & aliphatic hydrocarbons  Or Any other course  4 credits Marks: 100	L080105V Microbial Quality Control in Food and Pharmaceutical Industries  (3 credits) Marks: 100	Z010101T Food, Nutrition and Hygiene  (2 Credits) Qualifying	-	50	B.Sc. I Year  or Certificate in Microbial Techniques (Total credits = 50; Marks= 1100)
	II	L080201T Cell Biology  (4 credits) Marks: 100	L080202T Biochemistry  (4 credits) Marks: 100	L080203T Microbial Physiology and Metabolism  (4 credits) Marks: 100	L080204P Practical Work  (6 credits) Marks: 100	-		L080205V Entrepreneurship Development I  (3 credits) Marks: 100	Z020201 First Aid and Health  (2 Credits) Qualifying	-		
2	III	L080301T Inheritance biology  (4 credits) Marks: 100	L080302T Fundamentals of Molecular Biology  (4 credits) Marks: 100	L080303T Instrumentation, Biotechniques and Biostatistics  (4 credits) Marks: 100	L080304P Practical Work  (6 credits) Marks: 100	-	Any course offered from other faculty  4 credits Marks: 100	L080305V Microbial Diagnosis in Health Clinics and Disease Management  (3 credits) Marks: 100	Z030301 Human Values and Environment Studies  (2 Credits) Qualifying	-	50	B.Sc. II Year  or Diploma in Microbial Technology (Total credits = 100; Marks = 2200)
	IV	L080401T Microbial Genetics and Genomics  (4 credits) Marks: 100	L080402T Environmental Microbiology  (4 credits) Marks: 100	L080403T Microbial Technology  (4 credits) Marks: 100	L080404P Practical Work  (6 credits) Marks: 100	-		L080405V Entrepreneurship Development II  (3 credits) Marks: 100	Z040401 Physical Education and Yoga  (2 Credits) Qualifying	-		
3	V	L080501T Recombinant DNA Technology  (4 credits) Marks: 100	L080502T Applied Microbiology  (4 credits) Marks: 100	L080503T Agriculture Microbiology  (4 credits) Marks: 100	L080504T Computers and Bio-informatics  (4 credits) Marks: 100	L080505P Practical Work  (6 credits) Marks: 100	-	-	Z050501 Analytic Ability and Digital Awareness  (2 Credits) Qualifying	L080506R Research Assignment I  (4 Credits) Qualifying	56	B.Sc. in Micro-biology  (Total credits = 156; Marks = 3200)
	VI	L080601T Medical Microbiology and Immunology  (4 credits) Marks: 100	L080602T Food and Dairy Microbiology  (4 credits) Marks: 100	L080603T Industrial Microbiology  (4 credits) Marks: 100	L080604T Microbial Biotechnology  (4 credits) Marks: 100	L080605P Practical Work  (6 credits) Marks: 100	-	-	Z060601 Communication Skills and Personality Development  (2 Credits) Qualifying	L080606R Research Assignment II  (4 Credits) Qualifying		
4	VII	L080701T Cellular Microbiology  (4 credits) Marks: 100	L080702T Mycology and Phycology  (4 credits) Marks: 100	L080703T Virology  (4 credits) Marks: 100	L080704T Extreme Microbiology  (4 credits) Marks: 100	L080705P Practical Work  (4 credits) Marks: 100	Any course offered from other faculty  4 credits Marks: 100	-	-	Review writing and Presentation  (4 credits) -	52	B.Sc. Honors with Research in Microbiology (Total credits = 208; Marks = 4400)
	VIII	L080801T Plant Pathology  (4 credits) Marks: 100	L080802T Advances in Microbiology  (4 credits) Marks: 100	L080803T Entrepreneurial Microbiology  (4 credits) Marks: 100	L080804T Plant Tissue Culture, Methods and Applications  (4 credits) Marks: 100	L080806P Practical Work  (4 credits) Marks: 100		-	-	L080807R Review writing and Presentation  (4 credits) Marks: 100		

# Integrated Undergraduate-Postgraduate Programme in Microbiology

## Five Years (10 Semesters) Programme Course Structure

Year	Semester	Major Course					Minor Elective (Other Faculty) (As per University Guidelines)	Vocational/Skill Development Course	Co-Curricular Course (As per University Guidelines)	Industrial Training/Review/Survey/Research Project	Min. Credits (for the year)	Cumulative Minimum Credits Required for award of Certificate/Diploma/Degree
		Course I	Course II	Course III	Course IV	Course V						
5	IX	L080901T Analytical Techniques  (4 credits)  Marks: 100	L080902T Advanced Molecular Biology  (4 credits)  Marks: 100	L080903T Microbial Omic Technologies  (4 credits)  Marks: 100	L080905T Molecular Host-Microbe Interactions  (4 credits)  Marks: 100	L080907P Practical Work  (4 credits)  Marks: 100	-	-	-	Research Project Dissertation  (4 credits)	48	M.Sc. in Microbiology (Total credits = 256; Marks = 5500)
				L080904T Bioethics, Biosafety and Intellectual Property Rights (IPR) (4 credits)  Marks: 100	L080906T Marine Microbiology  (4 credits)  Marks: 100							
	X	L081001T Molecular Microbial Genetics  (4 credits)  Marks: 100	L081002T Advanced Immunology and Immuno-techniques  (4 credits)  Marks: 100	L081003T Nanobio-technology  (4 credits)  Marks: 100	L081005T Animal Cell, tissue culture and transgenic technology (4 credits)  Marks: 100	L081007P Practical Work  (4 credits)  Marks: 100	-	-	-	L081008R Research Project Dissertation  (4 credits)  Marks: 100		
				L081004T Pharmaceutical Microbiology  (4 credits)  Marks: 100	L081006T Enzyme Technology  (4 credits)  Marks: 100							

## Program Highlights

Exits	Course	Highlights
I	Certificate in Microbial Techniques	<ul style="list-style-type: none"> <li>• Attraction for graduates/ post graduates of other streams</li> <li>• Provide opportunity to get skills of microorganisms handling and hygiene maintenance.</li> <li>• Enable to apply for technical positions in government and private labs/ institutes.</li> </ul>
II	Diploma in Microbial Technology	<ul style="list-style-type: none"> <li>• Attraction for graduates/post graduates of other streams</li> <li>• Become Technical hand in Microbiological Technology</li> <li>• Can work with: biological/ medical science in higher education institutions, public health, environmental organizations, food, dairy, pharmaceutical, biotechnology industries</li> </ul>
III	B.Sc. Microbiology	<ul style="list-style-type: none"> <li>• Choice based credit system will allow the students to choose inter-disciplinary, intra-disciplinary courses, skill oriented papers</li> </ul>
IV	B.Sc. Microbiology (Hons. With Research)	<ul style="list-style-type: none"> <li>• BSc Microbiology Hons. with Entrepreneurship course will enable to combine science with business skills - a key driver of employability.</li> </ul>
V	M.Sc. Microbiology	<ul style="list-style-type: none"> <li>• A student completing this program will be sought by the industry and academia or can go for higher studies.</li> </ul>

# Integrated Undergraduate-Postgraduate Programme in Microbiology

## Why Should Students Study Microbiology?

- Integrated programme will provide the graduates with knowledge in microbiology and an overview of the processes that employ or deal with microbes that enables them to handle the safe and efficient use of microbiological applications with development of competence on par with global standards and helps the graduates for life-long learning.
- This will prepare the graduates by imparting skills to use technological developments related to current and advanced areas involving molecular diagnostics, immunotechnology, mass cultivation of microbes, downstream processing and nanotechnology with scope for upskilling in all potential future technologies so as to contribute effectively for Research & Development leading to patenting and publishing.
- Programme will train the graduates to choose a decent career option either as Entrepreneur or having a high degree of employability; or pursue higher education - by empowering students with basic interpersonal skills, ability to handle critical situations allowing them to be good team members as well as training to excel in competitive examinations.
- Programme studies will impart a strong sense of social responsibility with awareness of professional and societal ethical values and scope to develop leadership capabilities.

## What can you do with Microbiology Degree?

- Acquired knowledge and understanding of the microbiology concepts as applicable to diverse areas such as medical, industrial, environment, genetics, agriculture, food and others.
- Demonstrate key practical skills/competencies in working with microbes for study and use in the laboratory as well as outside, including the use of good microbiological practices.
- Competent enough to use microbiology knowledge and skills to analyze problems involving microbes, articulate these with peers/ team members/ other stake holders, and undertake remedial measures/ studies etc.
- Developed a broader perspective of the discipline of Microbiology to enable him to identify challenging societal problems and plan his professional career to develop innovative solutions for such problems.

# Integrated Undergraduate-Postgraduate Programme in Microbiology

## Eligibility

Admission to integrated undergraduate-postgraduate programme in Microbiology shall be open to a person who holds an intermediate (10+2), with any of the combination of subjects amongst biology and mathematics with at least 50% marks in aggregate (5% relaxation for SC/ST).

## Admission Procedure

Admission through University Entrance Test.

## Number of Seats

Sixty only (60)

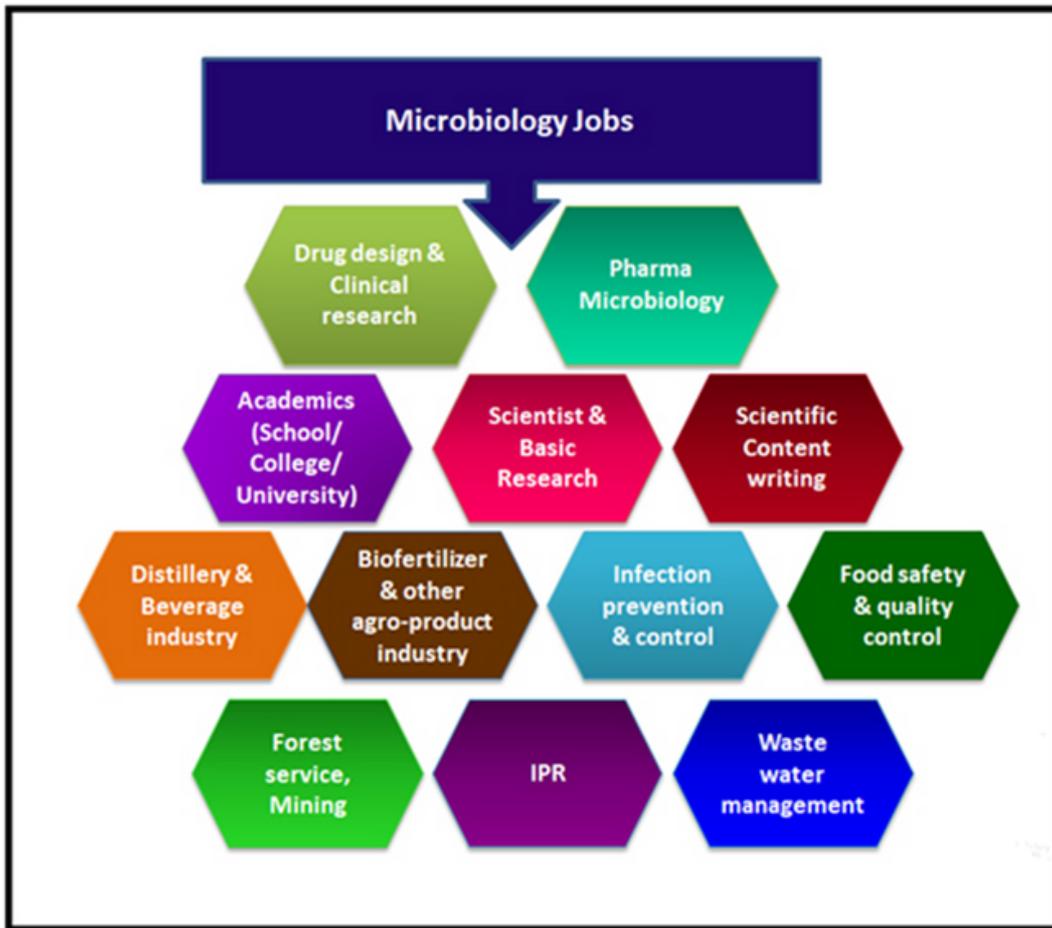
## Fee Structure

- First Year: Rs. 30,000/- (Thirty Thousand only)
- Second Year: Rs. 35,000/- (Thirty Five Thousand only)
- Third Year: Rs. 40,000/- (Forty Thousand only)
- Forth Year: Rs. 45,000/- (Forty Five Thousand only)
- Fifth Year: Rs. 50,000/- (Fifty Thousand only)



# Integrated Undergraduate-Postgraduate Programme in Microbiology

## Microbiology Thrust Areas





## Masters Programme in Microbiology

### Vision Statement

The M.Sc. Microbiology Course was running since 2001 with the aim to produce microbiologists of excellent caliber, with good research, teaching and technical skills and at the same time being sensitive to the needs of the society and environment.

# Masters Programme in Microbiology

## Goals of the M.Sc. Microbiology Programme

The M.Sc. Microbiology program essentially focus to develop skills of student for a successful career:

- The course structure emphasizes to put enough efforts in theory as well as laboratory work so as to gain thorough knowledge of the subject.
- The course includes project work that would develop and nourish the scientific approach and research attitude of the students.
- Genetic engineering, Biotechnology, Bioinformatics, Immunotherapy, nanobiotechnology, Omics technologies are the new horizons of the interdisciplinary subject Microbiology which might provide solutions to various problems of the society. The course work is essentially framed to acquaint the students with all the recent advances in this field.
- It is compulsory & essential for the students to read research papers, publications and deliver seminars that would better help them to know the recent advances in the subject and also develop the communication skills.
- The program is designed in such a way that it is essential for the students to read original publications, put enough efforts in laboratory work for practicals and project, be acquainted with all the recent advances in the field like Bioinformatics, drug designing and develop all the skills for a successful career.
- Programme includes value added courses as well as skill enhancement courses.

## Course duration and eligibility criteria

The M.Sc. degree course will be of two years duration.

A candidate who has passed the:

- Minimum 3 years Bachelor of Science from any recognized University with Biological Sciences will be eligible for M.Sc. Microbiology admission.
- The candidate who has secured aggregate of 50% marks (45 % marks in case of SC/ ST) in the graduate course as well as in the Microbiology Subject shall be eligible for admission to the First Year M.Sc. degree course.

**Total intake capacity : Forty (40)**

**Fee structure : Rs. 54,200/- PA**

# Masters Programme in Microbiology

## Two Years (IV Semesters) Programme Course Structure

### Semester wise Allocation

SEMESTER I	TITLE	COURSE TYPE	MARKS	CREDIT HOURS
			I+E	Th,Tu,P
MIC 1001	GENERAL MICROBIOLOGY	Core	25+75	3,1,0
MIC 1002	BIOCHEMISTRY	Core	25+75	3,1,0
MIC 1003	ANALYTICAL TECHNIQUES AND BIostatISTICS	Core	25+75	3,1,0
MIC 1004	CELLULAR MICROBIOLOGY	Core	25+75	3,1,0
MIC 1005	PRACTICALS: ANALYTICAL AND MICROBIAL TECHNIQUES	Core/Skill Enhancement	25+75	0,0,4
MNS1003	ADVANCED NUTRITION (MNS 1003)	Minor Elective	25+75	3,1,0
HSS101	PERSONAL COMMUNICATION	Minor Elective	25+75	4
MIC 1006	REVIEW WRITING PRESENTATION/ INTERNSHIP/PROJECT	Research based	Evaluation at year end	4
	<b>TOTAL</b>		<b>600</b>	<b>28</b>
SEMESTER II	TITLE	COURSE TYPE	MARKS	CREDIT HOURS
MIC 2001	BACTERIAL METABOLISM AND PHYSIOLOGY	Core	25+75	3,1,0
MIC 2002	FUNDAMENTALS OF MOLECULAR BIOLOGY	Core	25+75	3,1,0
MIC 2003	RECOMBINANT DNA TECHNOLOGY	Core	25+75	3,1,0
MIC 2004a	VIROLOGY	Elective	25+75	3,1,0
MIC 2004b	MYCOLOGY AND PHYCOLOGY	Elective	25+75	0,0,4
MIC 2005	PRACTICALS: RDT AND METABOLISM TECHNIQUES	Core/Skill	25+75	3,1,0
MIC 2006	REVIEW WRITING PRESENTATION/ INTERNSHIP/PROJECT	Research based	100	4
	<b>TOTAL</b>		<b>600</b>	<b>24</b>

# Masters Programme in Microbiology

## Two Years (IV Semesters) Programme Course Structure

### ... Semester wise Allocation

SEMESTER III	TITLE	COURSE TYPE	MARKS	CREDIT HOURS
MIC 3001	MICROBIAL GENETICS	Core	25+75	3,1,0
MIC 3002	CELLULAR AND MOLECULAR IMMUNOLOGY	Core	25+75	3,1,0
MIC 3003	AGRICULTURE AND ENVIRONMENT MICROBIOLOGY	Elective	25+75	3,1,0
MIC 3004	MARINE MICROBIOLOGY	Elective	25+75	3,1,0
MIC3005	EXTREME MICROBIOLOGY	Elective	25+75	3,1,0
MIC 3006	BIOSAFETY AND INTELLECTUAL PROPERTY RIGHTS (IPR)	Elective	25+75	3,1,0
MIC 3007	MOLECULAR HOST MICROBE INTERACTIONS	Elective	25+75	3,1,0
MIC 3008	PRACTICALS: APPLIED MICROBIOLOGY TECHNIQUES	Core/Skill	25+75	4
MIC 3009	RESEARCH PROJECT/INTERNSHIP/INDUSTRY TRAINING/SURVEY	Research based	Evaluation at year end	4
	<b>TOTAL</b>		<b>500</b>	<b>24</b>
SEMESTER IV	TITLE	COURSE TYPE	MARKS	CREDIT HOURS
MIC 4001	INDUSTRIAL MICROBIOLOGY	Elective	25+75	3,1,0
MIC 4002	MEDICAL MICROBIOLOGY	Elective	25+75	3,1,0
MIC 4003	FOOD MICROBIOLOGY	Elective	25+75	3,1,0
MIC 4004	MICROBIAL GENOMICS, PROTEOMICS AND BIOINFORMATICS	Elective	25+75	3,1,0
MIC 4005	PHARMACEUTICAL MICROBIOLOGY	Elective	25+75	3,1,0
MIC 4006	NANOBIOTECHNOLOGY	Elective	25+75	3,1,0
MIC 4007	ADVANCED IMMUNOLOGY & IMMUNOTECHNIQUES	Elective	25+75	3,1,0
MIC 4008	ENTREPRENEURIAL MICROBIOLOGY	Elective	25+75	3,1,0
MIC 4009	PRACTICALS	Core/Skill based	25+75	0,0,4
MIC 4010	RESEARCH PROJECT/DISSERTATION/INDUSTRY TRAINING/SURVEY	Research based	Evaluation at year end	8
	<b>TOTAL</b>		<b>600</b>	<b>24</b>
	<b>GRAND TOTAL</b>		<b>2300</b>	<b>100</b>

#### Note:

- **I: Internal Assessment**
- **E: External End Semester Examination**
- **Th: Theory, Tu: Tutorial, P: Practical**

# Masters Programme in Microbiology

## Student Centric Activities in the Department

- **Scientific Research:** Students engagement in scientific researches.
- **Alumni meet:** where accomplished alums joined the event to share their experiences in the corporate and entrepreneurial world.
- **Placement cell:** to bridge the gap between the stringent competition in the industry and talent available in this course, and to ensure students' achievements are valued by employers or enable further study.
- **Academic tours/ Industrial tours:** which enables students to gain work exposure.
- **Orientation programme/ Confidence building training programme/ personality development programme.**
- **Seminars, conferences, lectures from eminent scientists.**



विश्वविद्यालय में आयोजित सेमिनार में पुरस्कृत प्रतिभागियों के साथ कुलपति श्रीमिना गुप्ता (बाएं से दूसरी), विर डॉ. सुभाष आरुणोप और कुलसचिव विनीत कुमार सिंह।

### जंगल में आग लगते ही बजेगा मोबाइल

जंगल में आग लगते ही आपके मोबाइल पर घंटी बजेगी। फॉरेस्ट सर्वे ऑफ इंडिया ने फास्ट 3.0 पर काम किया है। बायोमैज के डायरेक्टर जंगल डॉ. सुभाष आरुणोप जी जंगल और डेल्सीनेट्स को बचाने के लिए फायर पर एंजिनियरिंग मोबाइल फॉन पर आग लगने के बाद अलर्ट आ जाएगा। यह अलर्ट लच फ्लैग, लच लच आग बुझ रही जल्दी।

### ओरल में डॉ. मंजू, पोस्टर में वैशाली और करुणामा खिजेता

सेमिनार में ओरल और पोस्टर प्रेजेंटेशन प्रतिभागियों को आयोजित किया गया। इन्होंने दो घंटे में किया गया। पहला डेल्सीनेट्स का और दूसरा काको का। कार्यक्रम सफलतापूर्वक डॉ. सायबत करिश्मर ने बताया कि डेल्सीनेट्स सर्वे में हुई ओरल प्रेजेंटेशन प्रतिभागियों में डॉ. मंजू भास्कर प्रथम, डॉ. स्वर्णिता यादव द्वितीय और डॉ. संवीता पाल तृतीय स्थान पर रहे। पोस्टर प्रेजेंटेशन में वैशाली धर्मेष्ठिक प्रथम, सुभाष एकबाल द्वितीय और आर्या तृतीय स्थान पर रही। काको के सर्वे में हुई ओरल प्रेजेंटेशन में मीतु राज प्रथम, अरुणक द्वितीय चतुर्थ द्वितीय और अंकुर भास्कर तृतीय स्थान पर रहे। पोस्टर प्रेजेंटेशन में करुणामा खिजेता प्रथम, सहाय विहार द्वितीय और सपनीत तृतीय स्थान पर रहे।



# Masters Programme in Microbiology

## Student Achievements

- A great number of students from previous batches cleared:
  - CSIR/ UGC JRF NET,
  - GATE,
  - ICMR JRF
  - ICAR NET
  - pursued PhD/ MTech/ MPhil



# Masters Programme in Microbiology

## Student Placements

Students got placement in eminent positions.

- A huge number of students now working in Food, Dairy, Beverage and pharmaceutical industries viz. Sahara India; Dr. Reddy's Lab; Jamshad Industries; Sarvodham Care, Solan; Sanzyme Private Limited, Hyderabad; IQVIA, Bangalore; Akams Microbiology, Haridwar; Frigorifico Allana; Zydus Cadila; Parsons Nutritional; Synochem Pharmaceuticals, Hardwar; Karnataka Antibiotics Pharmaceutical Ltd.; Namaste India; Parle; Regency Hospital, Kanpur

## Placements in Food, Dairy and Beverage Industries

- Sanzyme Pvt Ltd, Hyderabad - Dr Sachin Singh
- Sahara India - Amreesh Vishvakarma
- Dr. Reddy's Lab - Abhijeet
- Jamshad Industries - Devendra Sharma
- Sarvodham Care, Solan - Jugal Kishor
- Frigorifico Allana - Pratik Katiyar
- Zydus Cadila - Abhijeet Verma
- Parsons Nutritional - Namit Singh
- Karnataka Antibiotics Pharma Ltd. - T. Singh
- Namaste India - Rahul
- Parle - Raina Kesari

## Students clear CSIR/UGC JRF NET, GATE, ICMR JRF and ICAR NET to pursue PhD

- Kyung Hee University, S. Korea - Hina Singh
- NBRI, Lucknow - Sanoj Kumar
- IIT Guwahati - Umesh Kushwaha
- BHU, Varanasi - Devendra Singh
- IITR, Lucknow - Govind Saran Gupta
- NIV, Pune - Princi Mishra
- CDRI, Lucknow - Ajit Srivastava
- SGPGI, Lucknow - Akhilesh
- UPTU, Lucknow - Ravish Katiyar
- CDRI, Lucknow - Nirbhay
- SHIATS - Anjali Tewari

# Alumni

Students got placement in eminent positions. Few star holders are given below:



**Dr. Sadhana Singh Sagar,**  
**Scientist**  
Caliciviruses Section  
NIH Main Campus, Bethesda, MD



**Dr. Ram Nagina Singh**  
**Research Scientist**  
Genomics and System Biology  
South Dakota Mines, South Dakota,  
United States



**Dr. Govind Saran Gupta**  
**Scientist**  
Empa- Swiss Federal Laboratories  
for Materials Science and Technology,  
Switzerland



**Dr. Paras Porwal,**  
**Assistant Professor,**  
Amity Institute of Biotechnology, Amity University Uttar  
Pradesh, Lucknow



**Dr. Sakshi Tewari,**  
**Assistant Professor,**  
Department of Life Science,  
JB Bose University of Science and Technology, YMCA,  
Faridabad



**Dr. Govind Gupta,**  
**Assistant Professor,**  
SAGE School of Agriculture and Life Sciences,  
SAGE University, Bhopal

# Alumni



**Vineet Kumar Patel,**  
**Assistant Professor,**  
Department of Zoology, Kisan Post Graduate Colloge,  
Bahraich

**Dr. Utkarsh Singh,**  
**Assistant Professor,**

Combined PG Institute of Medical Sciences & Research,  
Dehradun



**Dr. Hina Singh,**  
**Post-Doctoral Researcher,**  
UC Riverside, California, USA

**Nishant Srivastava,**  
**Senior Research Fellow,**

Advanced Center for Plant Virology,  
Division of Plant Pathology,  
Indian Agricultural Research Institute, ICAR, New Delhi



**Suyash Srivastava,**  
**Project Officer,**  
Biotech Consortium India Limited (Department of  
biotechnology, Govt. of India)

**Dr. Sachin Singh**  
**Food Safety and Quality Professional, BRC Lead Auditor,**

Trained HACCP Level 4, PCQI for US,  
Sr. Manager Quality Assurance,  
Vijayakrishna Spices Pvt. Ltd, ( A spice export organisation)  
Hyderabad



# **Would you like to have a role in making the world a better place by:**

- **Learning about disease causing organisms so as to create better diagnostic tests, antibiotics, biocontrol agents and vaccines**
- **Better Agriculture with the use of plant promoting and disease controlling microbes**
- **Better the environment by detoxification of pollutants even plastics using micro-organisms, Microbe derived biofuel cells, biosensors etc**
- **Ensure health standards in food, water, dairy and beverages that we consume**
- **Develop molecular biology and genetic engineering biotools**

***TRAIN TO BE A  
MICROBIOLOGIST..***

# Facilities Available @ CSJM University, Kanpur

## Central Library

- It has a seating capacity for about 700 users. It has a collection of over 140,000 books, which consists of books, thesis, reference collections, and bound volumes of journals. In addition to this, it has good collection of E-resources like (e-journals, e-books and e-repository).



- There are six on-campus hostels with the capacity of 1114 seats, of which two are Boys' Hostels and four Girls' Hostels.

## Hostels

## Sports & Stadium

- A huge stadium of more than 1000 capacity for sports activities like 400 meters race, hammer throw, long jump, high jump, cricket tournament, football, hockey, basketball, handball, volley ball, tennis, kabaddi, kho-kho, etc.



- The Health Center is currently providing the entire treatment and vaccination for COVID-19 to the citizens of Kanpur city. It has facilities of 10 Oxygen Concentrator, Yoga Center, Happiness Center, Well-equipped with 10 beds, OPD facility, 24-hour ambulance service

## Health Center

## Shopping Complex

- This shopping complex has all those commodities to offer which one needs in daily life, like books, toiletries, clothes and grocery. The shopping complex also has a xerox machine.
- A post office is also provided in the same building.



# Facilities Available @ CSJM University, Kanpur

## Bank

The University campus has computerized branches of two Nationalized Banks namely Union Bank of India and Bank of Baroda to cater the banking needs of students. Fully equipped with ATM and Core Banking facility,



## Entrepreneurship & Innovation Incubation Center

- The University has, under the Student Start-Up Policy, established an Entrepreneurship & Incubation Center as a facility for proper functioning of the Entrepreneurship & Innovation Incubation Center (IEIC) and to provide a preliminary incubation space for the student and faculty start-ups.

## Placement Cell

The University placement cell is aimed to organize programs like career counseling, personal development, entrepreneurship development program and placement drives at the university campus to train the students up to the current industry level so that they can have a good placement opportunity for a bright future.

