



SAARTHI - सारथी

करियर मार्गदर्शन पोर्टल · Career Guidance Portal

"सही मार्गदर्शन, उज्ज्वल भविष्य।"

करियर शीट · CAREER SHEET

सूक्ष्मजीव विज्ञानी

Microbiologists study bacteria, viruses, fungi and other microorganisms. By understanding their effects, they harness microbes for human benefit in health, agriculture, food and industry.



Scan for everything on this career

Salary, exams, colleges, the routes in and the steps after — all on the portal.

career.gsssjethantri.in/#/career/microbiologist

राजकीय उच्च माध्यमिक विद्यालय, जेठन्तरी

Govt. Sr. Sec. School, Jethantri · ब्लॉक समदड़ी · बालोतरा (Block Samdari · Balotra)

www.gsssjethantri.in · career.gsssjethantri.in



सुशील कुमार शर्मा

प्रधानाचार्य, रा.उ.मा.वि. जेठन्तरी · मास्टर ट्रेनर
Principal, GSSS Jethantri · Master Trainer



श्री चेनाराम चौधरी

प्रधानाचार्य, डाइट बाड़मेर
Principal, DIET Barmer



श्रीमती संघमित्रा

वरिष्ठ व्याख्याता, डाइट बाड़मेर (सहयोग)
Sr. Lecturer, DIET Barmer (Support)



भरत चौधरी

अभिकल्पना व विकास · व्याख्याता (इतिहास)
Designed & developed · Lecturer (History)

विशेष धन्यवाद · SPECIAL THANKS



सुरेन्द्र सिंह राठौड़

व्याख्याता (इतिहास) · रा.उ.मा.वि. कानाना



सुरेश कुमार सैन

व्याख्याता (भूगोल) · रा.उ.मा.वि. रामसीन मूंगड़ा



वनिता कुमारी

व्याख्याता (इतिहास) · रा.उ.मा.वि. रामसीन मूंगड़ा



कमलेश चौधरी

व्याख्याता (राजनीति विज्ञान) · रा.उ.मा.वि. टापरा

करियर मार्गदर्शन कार्यशाला, डाइट बाड़मेर (14-17 जुलाई 2026) में विकसित व लोकार्पित
Developed & unveiled at the Career Guidance Workshop, DIET Barmer (14-17 July 2026)

यह एक स्वतंत्र परियोजना है, जो सरकार की आधिकारिक करियर-मार्गदर्शन सामग्री पर आधारित है। · An independent project based on the Government's official career-guidance content.

1 About this career

Microbiologists study bacteria, viruses, fungi and other microorganisms. By understanding their effects, they harness microbes for human benefit in health, agriculture, food and industry.

2 At a glance

Minimum qualification	B.Sc + M.Sc Microbiology
Selection exam	CSIR-UGC NET / GAT-B
Avg Salary	₹4–12 LPA
Work mode	Labs & industry

3 What you need

INTERESTS

- Interest in biology and microbes
- Enjoy lab and computer work
- Enjoy analysing problems

ABILITIES

- Keen observation skills
- Care and accuracy
- Analytical and logical thinking

KEY SKILLS

- Microbial culture and isolation
- Molecular biology (PCR)
- Quality control and testing
- Microscopy and staining techniques
- Biosafety and sterilisation
- Data analysis and reporting

4 How to get there

- 1 Complete 10+2 in the science stream (Physics, Chemistry, Biology).

- 2 Complete B.Sc in Biology/Microbiology/Biochemistry.
- 3 Do an M.Sc in Microbiology.
- 4 Clear CSIR-UGC NET and pursue a Ph.D for research roles.
- 5 Alternative: MBBS followed by MD in Microbiology.

MAIN EXAMS

- CSIR-UGC NET (Life Sciences)
- GAT-B (biotech admission)
- ICMR JRF / university entrance tests

5 Where to study

GOVERNMENT INSTITUTES

- University of Rajasthan — Jaipur (<https://www.uniraj.ac.in>)
- Mohanlal Sukhadia University — Udaipur (<https://www.mlsu.ac.in>)
- Central University of Rajasthan — Ajmer (<https://www.curaj.ac.in>)
- King George's Medical University — Lucknow (<https://www.kgmu.org>)

PRIVATE INSTITUTES

- Manipal Academy of Higher Education — Manipal
- Amity University — Noida
- Parul University — Vadodara

ONLINE

- IGNOU (Distance) — Distance (<https://www.ignou.ac.in>)
- SWAYAM / NPTEL — Online (<https://swayam.gov.in>)

FEES

B.Sc/M.Sc Microbiology fees range from about ₹7,000 to ₹3,20,000 per year. Government institutes charge far less.

SCHOLARSHIPS

- National Scholarship Portal (<https://scholarships.gov.in>)
- CSIR-UGC JRF Fellowship (<https://csirhrdg.res.in>)
- Rajasthan SJE Scholarships (<https://sje.rajasthan.gov.in>)

6 What the work is like

WHERE YOU WORK

Government and private hospitals, diagnostic labs, pharma and food companies, agricultural research organisations, research institutes and universities.

WORK CULTURE

Work involves handling microbes in the lab with strict hygiene and biosafety rules. Typically 5–6 days a week and 9–10 hours a day.

WHO HIRES

- Pharmaceutical and vaccine companies
- Food and beverage industry (FSSAI)
- Research institutes (ICMR, CSIR)
- Hospitals and diagnostic labs
- Agricultural research organisations (ICAR)
- Universities and colleges

DEMAND (2026)

With the expansion of healthcare, vaccine production, food safety and biotechnology, demand for microbiologists is rising fast in 2026.

7 Career growth

- 1 Intern / Junior Microbiologist
- 2 Microbiologist
- 3 Senior Microbiologist
- 4 Head of Department / Scientific Director

EARNINGS

Starting	₹25,000–45,000/माह
Mid level	₹55,000–95,000/माह
Senior level	₹1,30,000+/माह

Salary depends on industry, qualification and experience. Figures are indicative.

8 The good parts · The challenges

The good parts

- Contribution to health and food safety
- Job opportunities across many industries
- Scope for research and innovation

The challenges

- Risk from infectious samples
- Ph.D needed for senior roles
- Long, precise laboratory hours

9 Real-life journeys

Prof. Meenakshi Banerjee

Cyanobacteria Specialist & Algal Research Scientist

Prof. Meenakshi Banerjee is a microbiologist known for her research on cyanobacteria and algae. She studied at Banaras Hindu University and became head of the Bioscience department at Barkatullah University, Bhopal. In 2010 she received the Dr. K. N. Katju State-Level Science Award.

Indian Academy of Sciences · https://www.ias.ac.in/public/Resources/Initiatives/Women_in_Science/Contributors/meenakshibanerjee.pdf

Dr. Ananda Mohan Chakrabarty

Renowned Microbiologist & Genetic Engineering Pioneer

Dr. Ananda Mohan Chakrabarty was a world-renowned Indian-American microbiologist. He developed genetically engineered 'oil-eating bacteria' that could clean up marine oil spills. His work led to the first US patent on a living organism, a landmark in the history of biotechnology.

Wikipedia · https://en.wikipedia.org/wiki/Ananda_Mohan_Chakrabarty

10 Sources & further reading

1. Rajasthan Career Guidance Portal — <https://cg.rajasthan.gov.in/careerguidance/hi/career/%e0%a4%9c%e0%a5%80%e0%a4%b5%e0%a4%be%e0%a4%a3%e0%a5%81%e0%a4%a4%e0%a4%a4%e0%a5%8d%e0%a4%b5%e0%a4%b5%e0%a5%87%e0%a4%a4%e0%a5%8d%e0%a4%a4-%e0%a4%ac%e0%a5%88%e0%a4%95%e0%a5%8d%e0%a4%9f%e0%a5%80%e0%a4%b0/>
2. Indian Council of Medical Research — <https://www.icmr.gov.in>
3. CSIR HRDG (NET/JRF) — <https://csirhrdg.res.in>
4. Salary reference (SalaryExpert) — <https://www.salaryexpert.com/salary/job/bacteriologist/india>



And 770+ more careers — the whole portal

Interest and aptitude tests, government jobs, skill courses and a CV builder — free, no login, and it works offline.

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