AmbujaNeotia

THE NEOTIA UNIVERSITY

ज्ञानम् आत्म प्रदीपाय

Approved Under Sec.2(f) of UGC Act 1956

www.tnu.in

Department of Biotechnology and Microbiology

- B.Sc. (Hons.) in **Biotechnology**
- M.Sc. in **Biotechnology**
- B.Sc. (Hons.) in **Microbiology**
- M.Sc. in **Microbiology**

Industry Partners for Internship & Placement

Suraksha Clinic & Diagnostics | CMBT Center for Microbiology & Bio-technology Research and Training Institute, Bhopal (MP) | MACLEODS | wipro | emami | PRESIDENCY UNIVERSITY | MEDICA Hospitals caring for life

Eligibility Criteria

- B.Sc. (Hons.) in Biotechnology / Microbiology: **12th standard pass with any 3 Science Subjects with at least 55% marks.**
- M.Sc. in Biotechnology / Microbiology: **Graduation B.Sc. in any Life Science Subjects in B.Sc. (Botany, Zoology, Microbiology, Biotechnology, Biochemistry, Agricultural Sciences etc.) with at least 55% marks.**

Fees Structure

Courses Offered	Fee per semester (Rs.)	One Time Fee (Rs.)	1st Semester Fee (Rs.)	Total Course Fee (Rs.)
B.Sc. (Hons.) in Biotechnology (4 Years)	55000	29000	84000	3,59,000
B.Sc. (Hons.) in Microbiology (4 Years)	55000	29000	84000	3,59,000
M.Sc. in Biotechnology (2 Years)	40000	29000	69000	1,89,000
M.Sc. in Microbiology (2 Years)	40000	29000	69000	1,89,000

Also Offered: PH.D. in Biotechnology / Microbiology

Scope and Opportunities

Biotechnology

Biotechnology sector in India is rapidly experiencing an unprecedented surge, making it a vibrant "sunrise sector" poised for explosive growth. With a supportive government and a blossoming startup ecosystem, the sector is on track to reach a staggering $300 billion valuation by 2030. Biotechnology sector is a force to be reckoned with, offering promising advancements in healthcare, agriculture, and more. Here's a quick glimpse:

- **Thriving Industry:** Valued at $80 billion in 2022, the sector is expected to nearly quadruple in size by 2030.
- **Startup Hub:** **Biotech startups have exploded, with over 5,300 in 2021 compared to just 50 a decade earlier.**
- **Focus Areas:** India is a major player in biopharmaceuticals (vaccines, drugs) and biosimilars (generic versions of biological drugs) Agriculture and bioinformatics are also growing sectors.

Microbiology

Microbiology is the scientific exploration of microscopic organisms invisible to the unaided eye – a hidden world teeming with life! These microbes, including bacteria, archaea, fungi, viruses, and protists, play a fundamental role in our planet and are the most ancient inhabitants of the planet. Microbiology is a dynamic field with far-reaching impacts. By studying these tiny titans, we gain a deeper understanding of the world around us and unlock possibilities for a healthier future. Here's a quick glimpse:

- **Microbial Marvels:** Microbes are everywhere – in the air we breathe, the food we eat, and even inside our bodies. They are essential for nutrient cycling, decompose organic matter, and some even fix nitrogen in the soil, making it usable for plants.
- **Friend or Foe?** **While some microbes cause diseases like pneumonia or food spoilage, others are beneficial. Our gut microbiome aids digestion and protects us from harmful pathogens. Microbes are also used in the production of antibiotics, vaccines, and biofuels.**
- **Unlocking Secrets:** Microbiologists use advanced techniques like microscopy, culturing, and genetic analysis to study microbes. Their research helps us understand infectious diseases, develop new drugs, and create innovative solutions for environmental issues.

Program Objective

The program objectives of Biotechnology and Microbiology can be broadly categorized into two main areas: **Knowledge and Skill Development and Career Preparation.**

Upto
100%
Scholarship
Available

Knowledge and Skill Development	Career Preparation
Strong foundation in life sciences: Gain a deep understanding of core biological principles like genetics, biochemistry, microbiology, and immunology.	**Research and development:** Prepare for careers in research institutions or pharmaceutical companies, developing new drugs, vaccines, or bioremediation technologies.
Modern biology techniques: Master laboratory techniques in areas like genetic engineering, cell culture, bioinformatics, and bioprocess engineering.	**Industry:** Equip yourself for roles in various industries like agriculture (improving crop yields), food science (developing food products), vaccines, or biofuels.
Critical thinking and problem-solving: Develop the ability to analyze complex biological problems and design solutions using biotechnology tools.	**Entrepreneurship:** Develop the skills and knowledge needed to launch your own start up
Effective communication: Learn to communicate scientific findings clearly and concisely, both verbally and in writing.	**Teaching and education:** Pursue a career in teaching Biotechnology and/or Microbiology at the university or college level.

Department Highlights

- **State-of-the-Art Laboratories:** The department possesses well-equipped laboratories for various applications, including microbiology, algal culture, molecular biology, biochemistry, and bioinformatics.
- **Experienced Faculty:** The department has a team of qualified and experienced faculty members actively involved in research and committed to providing students with a comprehensive learning experience.
- **Focus on Research:** The department encourages research through various initiatives, including individual research projects, collaborative research opportunities with faculty, and participation in national and international conferences. The department published more than 40 research articles in various prestigious peer-reviewed journals.
- **Research Grant:** The faculty of the department get research grant funded by SERB, DST, Government of India in recognizing outstanding research profile of the department.
- **Competitive Exams:** The department excels in competitive exams, with students achieving high GATE percentiles, showcasing its effective teaching and learning environment, preparing students with the necessary knowledge and skills for success.
- **Industry Exposure:** The department emphasizes practical experience and offers students industry exposure through internships, study tours, and in-house and outsourced programs, bridging the gap between theoretical knowledge and practical application, preparing them for successful biotechnology careers.

Advantage of TNU

- **Innovation and Incubation:** The department fosters a culture of innovation and entrepreneurship, encouraging students to think creatively and develop solutions to real-world problems. This is evident in the numerous innovative projects undertaken by students, including the development of a DNA isolation kit, plastic-free sanitary napkins, algal jewelry, and even instruments like a UV Transilluminator. These achievements showcase the department's commitment to nurturing student creativity and problem-solving skill.
- **Campus Assistance:** The department actively facilitates job placements for students through on-campus recruitment drives. These drives attract various Multinational companies, providing students with ample opportunities to secure positions after graduation.
- **Memorandum of Understanding:** The department has established a prestigious Memorandum of Understanding (MoU) with Suraksha Diagnostics centres, specifically their R&D wing located in New Town. This collaboration opens doors for potential research opportunities, faculty exchange programs, and internship placements for students, fostering valuable industry experience and connections.

Scholarships & Financial Aid

At **TNU**, we offer numerous merit-based as well as need-based scholarships **(25% to 100% on Tuition Fees)** to ensure that no student is left behind. There is no limit to the number of scholarships granted by the University and if a student is eligible as per the given criteria then he or she will get the **"Guaranteed Scholarship".**

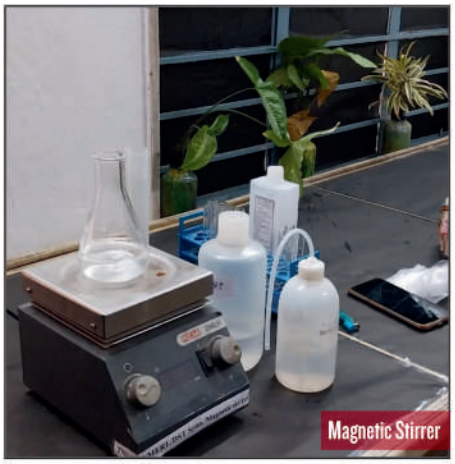
- **CHANCELLOR SCHOLARSHIP**
- **SPORTS SCHOLARSHIP**
- **CULTURAL SCHOLARSHIP**
- **SARVODAYA SCHOLARSHIP** (in the memory of Late Suresh Kumar Neotia) (Family Income < 2.5 Lakhs / annum)
- **MERE APNE SCHOLARSHIP** (For AmbujaNeotia Group employees in the memory of Late Vinod Kumar Neotia)
- **SAHODARYA SCHOLARSHIP** (Siblings of all TNU students - present or passed out)
- **GRAMOTTHAN SCHOLARSHIP** (Students from Gram Panchayat area of South 24 Parganas)
- **SPECIAL HILL STUDENTS SCHOLARSHIP** (Resident of GTA Area (W.B), North-East States, Andaman and Nicobar Islands, Nepal & Bhutan)

West Bengal Govt. Student Credit Card is accepted at TNU

Some activity photographs Department of Biotechnology


Biotechnology Lab


Student working with Microscope


Magnetic Stirrer


Student working with Shaker


Microbiology Lab


Student working in Laminar Air Flow

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Head Office / City Admission Office: Vishwakarma, 86C Topsia Road (S), Kolkata - 700 046

For Admission related details, Call: Campus: +91 70444 46888

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