



योग: कर्मसु कौशलम्

Darshan
UNIVERSITY

B.Sc.

BACHELOR OF SCIENCE IN MICROBIOLOGY



A
Science
Undergraduate
Program that Provides
Fundamental & Applied
Interdisciplinary Education in
Life-science Subjects

Curriculum based on |
NEP-2020



Darshan Institute of Science

The **Darshan Institute of Science** offers strong and academic foundation in Microbiology subject. The institute focuses on providing students with a solid understanding of biological sciences through hands-on learning, practical experience, and modern laboratory facilities. With a dedicated faculty and a curriculum designed to foster critical thinking and research skills, students are prepared for careers in science and related fields. The institute encourages exploration and innovation, helping students build the knowledge and skills necessary for success in the scientific community.



B.Sc. Microbiology

Explore the Invisible World with Microbiology

Microbiology is a fundamental branch of life sciences that influence **healthcare, food safety, biotechnology, and environmental sustainability**. It focuses on microorganisms such as bacteria, fungi, and viruses that affect our daily lives.









In healthcare, microbiology helps us understand diseases and supports the development of antibiotics and vaccines. It ensures that food and dairy products remain safe and of high quality. It also plays a vital role in waste management, pollution control, and environmental protection.

This program combines strong theoretical knowledge with practical training. Through **laboratory work, instrument handling, quality testing, and problem-solving activities**, students develop industry-ready skills for career in pharmaceuticals, food industries, diagnostic laboratories, environmental services, and research.

The program is best suited for students who wish to pursue careers in scientific experimentation and analytical processes within laboratories in the pharmaceutical industry, clinical research, agriculture, dairy and food industries, water quality management, nanotechnology, and the bioprocess industry.



Industry Internships

15+

Hands-on
Instruments

15+

Students Completed
Internships (2026)

6+

Industrial
Field Visits

2+

Enrichment
Courses
(aligned with industry needs)



B.Sc. Microbiology @ Darshan University



Highly qualified, well experienced, industry linked, dedicated faculties.



Inter-disciplinary, management, and soft skill courses for holistic learning.



Industry-oriented skill-based curriculum.



Dedicated mentoring for academic success.



Exposure to cutting-edge technologies through field visits.



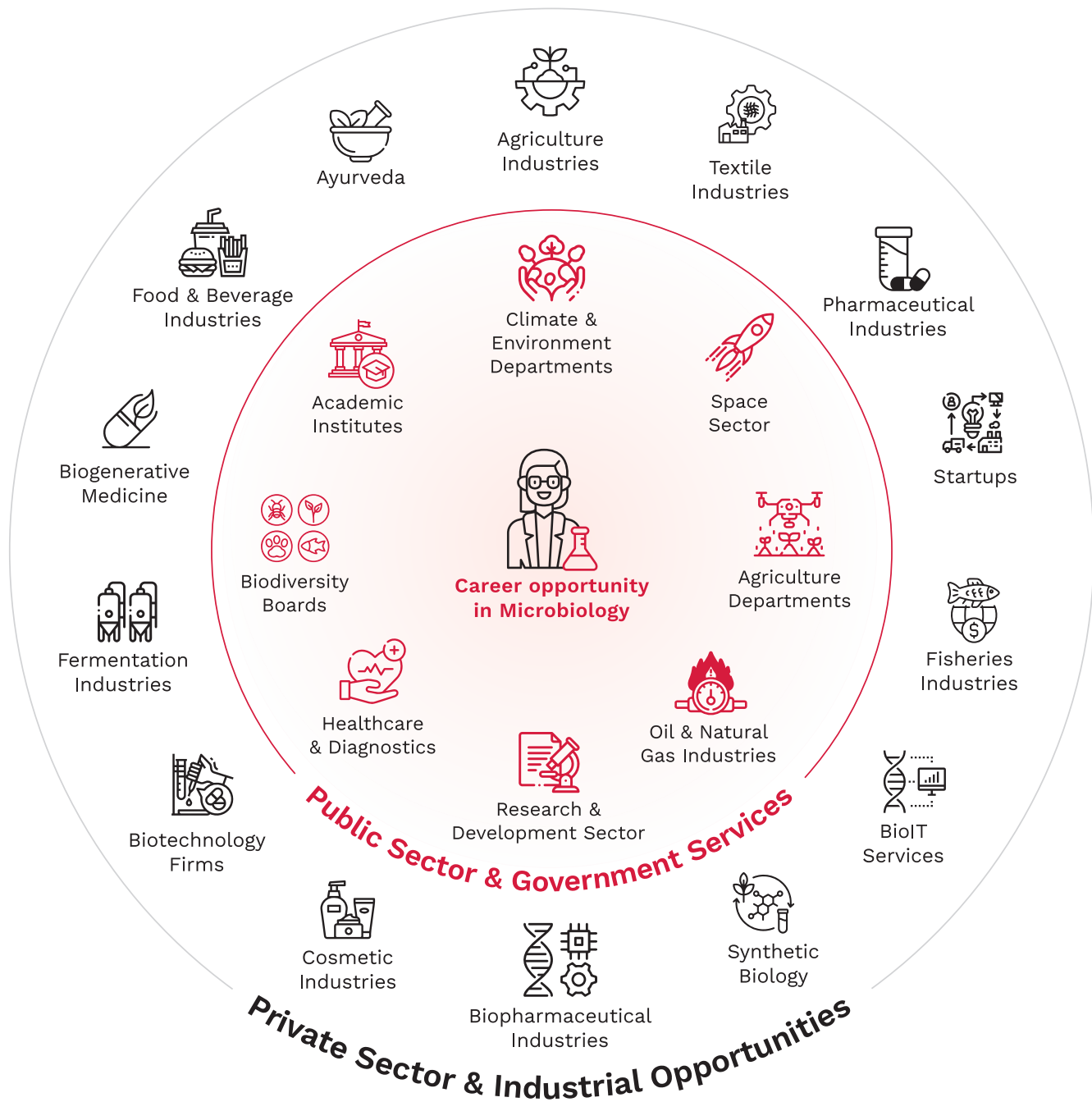
Accelerating career growth with flexible learning pathways.
































Strong foundation for advanced life science subjects.



Guidance for competitive exam preparation.



Semester-1	Semester-2	Semester-3	Semester-4	Semester-5
 <p>Fundamentals of Microbiology Laboratory Skills</p>	 <p>Cell Biology</p>	 <p>Agriculture, Food & Dairy Microbiology</p>	 <p>Bio-Analytical Techniques</p>	 <p>Genetic Engineering & Microbial Biotechnology</p>
 <p>Introduction to Microbiology</p>	 <p>Microbial Diversity and Systematics</p>	 <p>Microbial Ecology & Environmental Microbiology</p>	 <p>Microbial Genetics and Molecular Biology</p>	 <p>Immunology</p>
 <p>Basic Biochemistry</p>	 <p>Microbial Growth and Control</p>	 <p>Microbial Physiology and Metabolism</p>	 <p>Discipline Specific Elective - I</p>	 <p>Industrial Microbiology</p>
 <p>Foundational English</p>	 <p>Bio-computing and Biostatistics</p>	 <p>Seminar Presentation</p>	 <p>Open Elective</p>	 <p>Discipline Specific Elective – II</p>
 <p>Basics of Academic Writing</p>	 <p>Indian Knowledge System</p>	 <p>Professional Communication</p>	 <p>Office Automation Tools</p>	 <p>Life Management & Human Values</p>
 <p>Indian Constitution</p>	 <p>Environmental Studies</p>	 <p>Career Orientation</p>		
 <p>Induction Program</p>				

Semester-6



Advances in Microbiology



Virology & Medical Microbiology



Poster Presentation



Capstone Project / Field Training

Open Elective



Basics of Organic Farming



Banking System

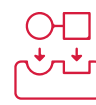
Discipline Specific Elective Courses - I



Biotechnology & Human Welfare



Entrepreneurship and IPR



Microbial Enzyme Technology

Discipline Specific Elective Courses - II



Basics of Bioinformatics



Bioremediation & Environmental Sustainability



Introduction to Animal & Plant Tissue Culture

Curriculum Aligned with National Policies

Genome India Project



- Microbial Diversity & Systematics (2307MB202)
- Bioanalytical Techniques (2307MB401)
- Microbial Genetics and Molecular Biology (2307MB402)
- Genetic Engineering (2307MB501)

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- Biotechnology & Human Welfare (2307MB411)
- Entrepreneurship and IPR (2307MB412)
- Industrial Microbiology (2307MB503)
- Advances in Microbiology (2307MB601)



BioE3 Policy

National Biofoundry Network



- Bioanalytical Techniques (2307MB401)
- Industrial Microbiology (2307MB503)
- Field Training (2307MB600)
- Advances in Microbiology (2307MB601)

- Bio-computing and Biostatistics (2307MB204)
- Basics of Bioinformatics (2307MB511)
- Advances in Microbiology (2307MB601)



Bio-AI Hubs

Biopharma SHAKTI



- Genetic Engineering (2307MB501)
- Biotechnology & Human Welfare (2307MB411)
- Microbial Genetics & Molecular Biology (2307MB402)
- Industrial Microbiology (2307MB503)
- Advances in Microbiology (2307MB601)
- Virology and Medical Microbiology (2307MB603)



Advanced Microbiology & Bioanalytical Laboratory Instruments



Orbital Shaking Incubator



Laboratory Oven



Trans-Illuminator



SDS PAGE Assembly



pH Meter



Bacteriological Incubator



Universal Refrigerated Centrifuge



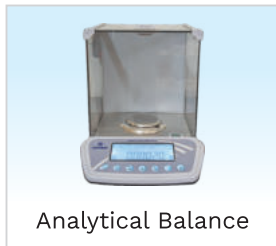
UV-Visible Spectrophotometer



Laminar Air Flow Cabinet



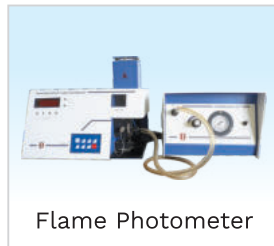
Autoclave



Analytical Balance



Gel Electrophoresis



Flame Photometer



BOD Incubator



COD Digester



Field Exposure



Exploring Innovation at Gujarat Biotech Research Centre



Learning Quality Control of Packaged Food at Balaji Industry



Biofertilisers and Biopesticides Production at FISHPA



Building Scientific Curiosity at Regional Science Centre



Exploring Microbial Dairy Operations at Ufresh Dairy



Biofuel Manufacturing Process at Raiyani Industry



Industry-Oriented Microbiology Skills



Basics of Aseptic Handling Techniques



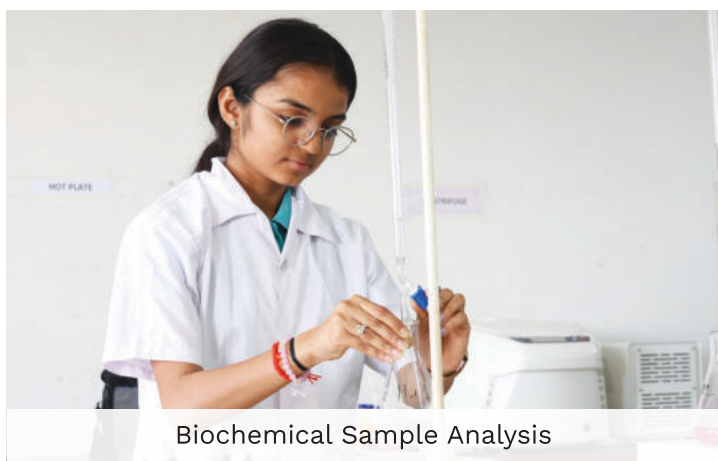
Hands-on Molecular Biology



Exploring Microbes for Organic Farming



Understanding the Applications of Bio-instrumentation



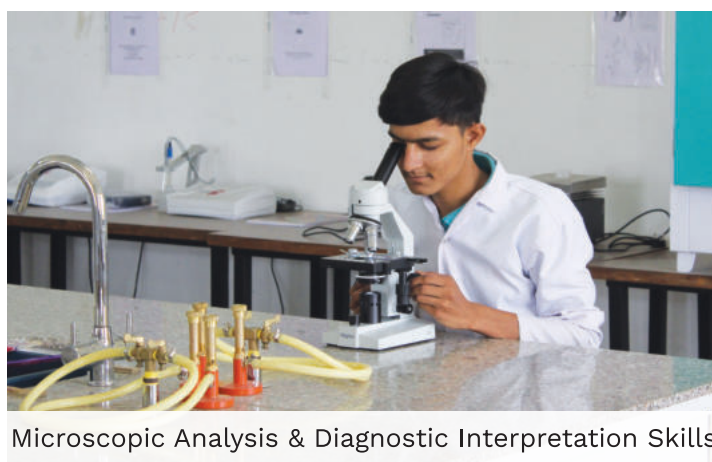
Biochemical Sample Analysis



Hands-on Bioinformatics



Biomolecule Separation and Purification



Microscopic Analysis & Diagnostic Interpretation Skills



Building Future-Ready Professionals



Engaging Scientific Presentation Showcase



Seminar on Entrepreneurship & Startups



Guidance for Competitive Exams



Turning Ideas into Leadership



Sustainable Waste Management



Building Confidence for an Interview

RECESSION PROOF



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UNIVERSITY

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Counseling Centre

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- ☎ 7096979983, 8980023577