



योग: कर्मसु कौशलम्

Darshan
UNIVERSITY

M.Sc.
MASTER OF SCIENCE IN MICROBIOLOGY



A
Life-science
Postgraduate
Program that Provides
Skill-based Education for
Professional Preparedness in
Advance Microbiology



M.Sc. Microbiology








Microbes are the oldest inhabitant of earth and the life of a human is directly or indirectly intertwined with them since time immemorial though their existence was discovered much later. Microbes are ubiquitous and hold immense diversity which has made microbial studies a keen area of interest. The Master of Microbiology is a research oriented program, that trains and shapes career of the students on more specialised area. M.Sc. Microbiology will open a broad field of life-science with interdisciplinary applied research and development (R&D) career opportunities.

Eligibility Criteria:

Bachelor's degree under 10+2+3/4/5 pattern of education (B.Sc./ B.Voc/ B.E./ B.Tech etc.) in Microbiology, Biotechnology, Biochemistry, Bioinformatics, Genetics, Medical Laboratory Technology Sciences, Botany, Zoology, Life Sciences, Environmental Sciences, Agricultural, Veterinary, Fishery & Dairy Sciences, Pharmacy, Medicine (MBBS), BDS, BHMS, BAMS or Physiotherapy from a recognized university/institute.



M.Sc. Microbiology @ Darshan University

-  Curriculum designed for outcome based learning.
-  Laboratories with industrial and research standard advance instruments.
-  Experience faculties with urge of continuous updating and student mentoring attitude.
-  Research attitude development through problem solving practical pedagogy.
-  Professional preparedness through visits, workshops and trainings.
-  Employability, entrepreneurship, and technical skill based curriculum.
-  Holistic development of students with the aim to impart leadership, entrepreneurship, and cultural values along with technical expertise.



Career Opportunities

Government Sectors



Health Services



Biodiversity Board



Scientific Adviser



R & D Laboratories



Forensic Scientist



Oil & Natural Gas Industry



Academic Institutes



Agriculture Departments



Space Microbiologist

Private Sectors



Food & Cosmetics Industries



Biotechnology Firms



Bio-Pharmaceuticals



Agriculture Industries



Diagnostics & Healthcare



Fermentation Industries



Pharmaceutical Industries



Fisheries Industries



Startup



Syllabus

Semester-1

- General Microbiology, Diversity & Systematics
- Biochemistry and Enzymology
- Basic Immunology and Diagnostics
- Elective - 1
- Combine Practical Course - 1

Semester-2

- Microbial Physiology and Metabolism
- Microbial Genetics and Molecular Biology
- Microbial Ecology and Applied Microbiology
- Elective - 2
- Combine Practical Course - 2

Semester-3

- Bioengineering and Bioprocess Technology
- Genetic Engineering & Microbial Biotechnology
- Virology & Mycology
- Skill Enhancement Course - 1
- Combine Practical Course - 3
- Dissertation Phase - I

Semester-4

- Environmental Microbiology and Microbial Remedial Technology
- Medical Microbiology
- Combine Practical Course - 4
- Dissertation Phase - II

Elective Courses

- Bio-analytical Techniques and Bioinformatics
- Bio-Computing and Biostatistics
- Agriculture Microbiology
- Molecular Cell Biology and Inheritance Biology

Skill Enhancement course

- Advances in Microbiology
- Extremophiles & Extremozymes
- Functional Food & Microbial Products

ADD - ON Courses

- Research Methodology & Technical Communication
- Seminar Presentation - 1
- Seminar Presentation - 2
- MOOC through SWAYAM / NPTEL
- Microbiology Professional Preparedness Activity



Focused Research Area



Soil & Agri
Microbiology



Enzymology



Aquatic
Microbiology



Environmental
Biotechnology



Omics
Technology



Extremophiles



Computational Biology
& Bioinformatics



Molecular Microbiology
and Microbial Genomics



Skill Enhancement Activities @ DU



Microbial Analysis for Food Spoilage



Advance Instrumentation Training



Scientific Seminar Presentation



Industry Visit @ UFresh



Motivational Talk



Biochemical Analysis of Enzymes



Research and Development Laboratory Visit



Waste Management



Central Instrumentation Facility @ DU



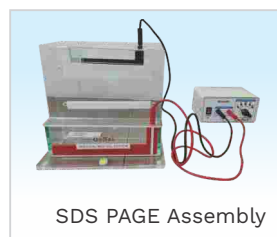
Orbital Shaking Incubator



Laboratory Oven



Trans-Illuminator



SDS PAGE Assembly



pH Meter



Bacteriological Incubator



Universal Refrigerated Centrifuge



UV-Visible Spectrophotometer



Laminar Air Flow Cabinet



Autoclave



Darshan
UNIVERSITY

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University Campus

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Rajkot – 363650.
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Counseling Centre

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