Dr. B. Lal Institute of Biotechnology
An Exclusive Biotechnology Institute

Lead the Biotech Revolution & Explore Cutting-edge Innovations with BIBT!

M.Sc.

in Biotechnology and Microbiology

Program Overview

The program aims to produce well-rounded graduates who have the knowledge and skills necessary to contribute to the advancement of biotechnology and related fields. Additionally, the Master's degree can provide students with the skills and experience necessary to pursue leadership positions in the industry or to continue their education with a PhD.

Key Features of Msc Biotechnology

- Master Biotech Fundamentals
- Specialized Training in genomics, proteomics & bioinformatics
- Develop Research Skills experiment, analyze & present
- Career-Ready for R&D, pharma, agri & medical tech
- Enhance Communication for teamwork & research
- Understand Ethics & Regulations in biotech
- Commit to Lifelong Learning & Growth

Key Features of Msc MicroBiology

Study Microbial Diversity

Explore Biotech, Medicine & Environment

Master Research & Lab Skills

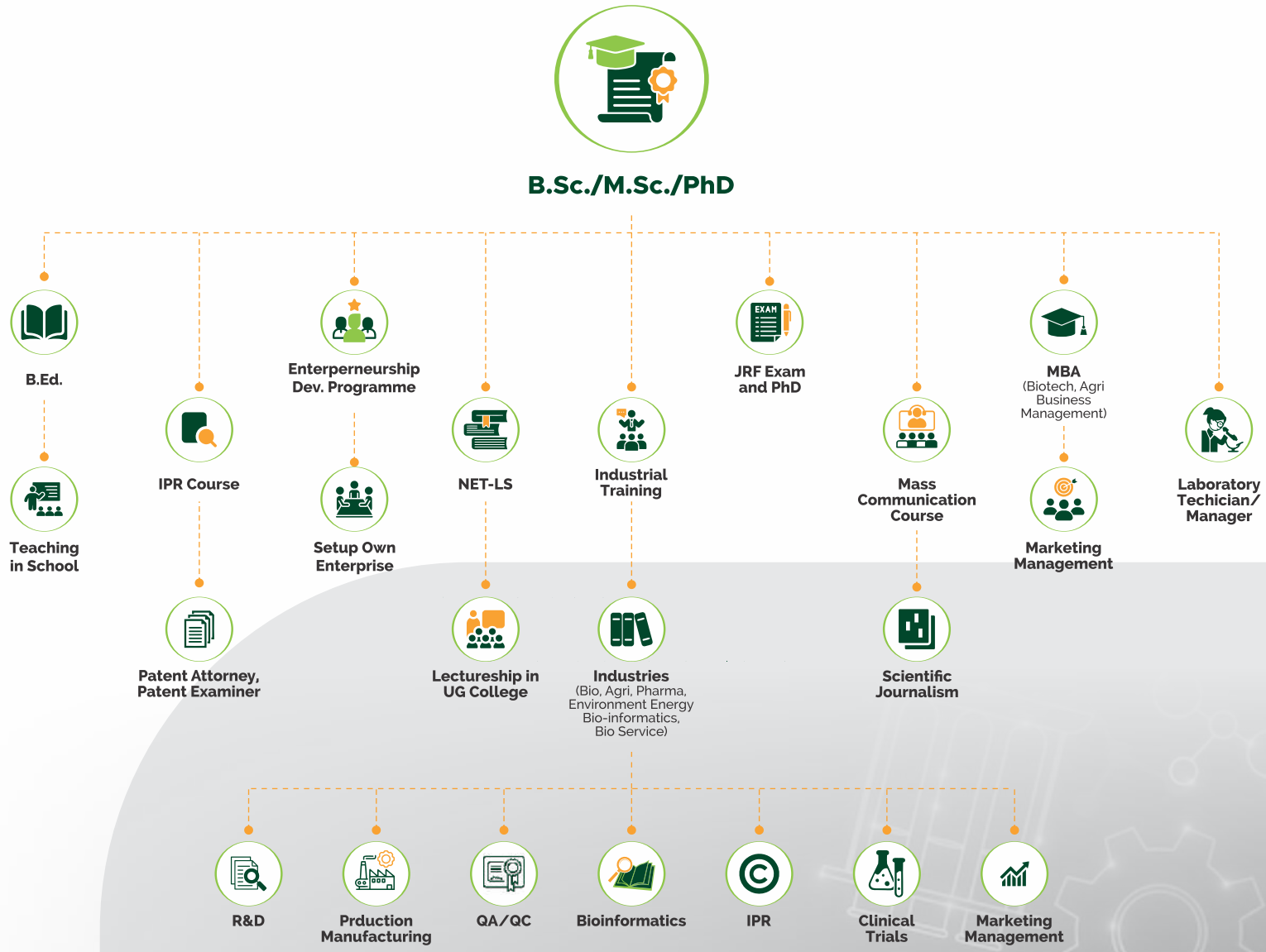
Prepare for Careers in R&D & Pharma

Enhance Communication & Teamwork

Understand Ethics in Microbiology

Commit to Lifelong Learning

Career Opportunities & Placements



Course Curriculum

M.Sc. Biotechnology Sem I

1. Cell Biology
2. Genetics
3. Microbiology
4. Analytical Techniques
5. Bioprocess Engineering
6. Gen. Biotechnology Lab (Core)
7. Lab based on electives (Analytical Techniques)
8. Lab based on electives (Bioprocess Engineering)

M.Sc. Biotechnology Sem II

1. Molecular Biology
2. Virology & Immunology
3. Biological Macromolecules & Enzymology
4. Bioinformatics & Biostatistics
5. Industrial Biotechnology & Biosafety
6. Biodiversity, Ecology & Evolution
7. General Practical Lab
8. Lab based on Elective - Bioinformatics & Biostatistics
9. Lab based on elective - Industrial Biotechnology & Biosafety
10. Lab based on elective - Biodiversity, Ecology & Evolution

M.Sc. Biotechnology

M.Sc. Biotechnology Sem III

1. Genetic Engineering
2. Animal Biotechnology
3. Entrepreneurship & Ethics
4. Protein engineering
5. Proteomics & Genomics
6. Seminar, Scientific Writing and Presentations
7. Gen. Practical Lab
8. Lab based on elective 1 - (Entrepreneurship & Ethics)
9. Lab based on elective 2 - Protein engineering
10. Lab based on elective 3- (Proteomics & Genomics)

M.Sc. Biotechnology Sem IV

1. Plant Biotechnology
2. IPR and Biosafety
3. Virology
4. Applied Environmental Biotechnology
5. Gen. Practical Lab based on BTH X01, BTH X02, BTH X03 (BTH X11))
6. Lab based on elective(Virology)
7. Lab based on elective (Applied Environmental Biotechnology)

Course Curriculum

M.Sc. Microbiology Sem I

1. General Microbiology
2. Techniques in Microbiology
3. Microbial Biochemistry
4. Molecular Biology
5. Bioinstrumentation
6. Gen. Microbiology Lab (Core)

M.Sc. Microbiology Sem III

1. Virology
2. Microbial Genetics
3. Computational biology
4. Genetic Engineering
5. Phycology and mycology
6. Gen. Microbiology Lab
7. Lab based on electives only

M.Sc. Microbiology

M.Sc. Microbiology Sem II

1. Bacteriology
2. Microbial Metabolism & Physiology
3. Medical Microbiology
4. Lab (Based on MBC 801, MBC 802, & MBC 803)
5. Food Microbiology
6. Environmental Microbiology
7. Dairy Microbiology
8. Lab (based on electives only)

M.Sc. Microbiology Sem IV

1. Immunology
2. Microbial Ecology
3. Industrial Microbiology
4. Genomics and Proteomics
5. Agricultural Microbiology
6. Clinical and Diagnostic Microbiology
7. Lab based on Electives
8. Gen. Microbiology Lab based on MBC 1001, MBC 1002, MBC 1003

Holistic Learning

VALUE ADDED COURSES

- Research Methodology
- Artificial Intelligence
- Data Analytics
- Medical Diagnostics
- Environmental Sustainability & Waste Management
- Nutrition and Health

SKILL PROGRAMMES

- Molecular Biology
- Environment Biotechnology
- Medical Biotechnology
- Bioinformatics
- Molecular Diagnostics
- Plant Biotechnology
- Dissertation Programs

CO-CURRICULAR ACTIVITIES

- Cultural Club
- Sustainability Club
- Sports Club
- Marketing Club
- Photography Club
- Literature Club
- NSS

SHAPING FUTURE

- Industry Visits & Sessions
- Experts Sessions for Professional Development
- Pre Placement Sessions
- Higher Education & Overseas Education Sessions
- Entrepreneurship Sessions
- Medical Facilities & Insurance
- Guru Shishya Parampara

BIBT ADVANTAGE

- State of the art lab & instrumentation
- Industry-focused Curriculum & Practical Training
- Experienced Faculty
- Active Placement Cell
- Research-driven orgainsation
- Strong Brand Values and Alumni Network

OUR TOP RECRUITERS

Dr. B. Lal Clinical Laboratory, Cipla, Martlenz, Sun Pharma, agshealth, NURA, Oasis Test House, Intas Pharmaceuticals, Asclepius Wellness Pvt. Ltd., IRCTC, TEAM

OUR COLLABORATIONS

IIC, Vibha, iSTART, Wadhwani Foundation, Marwari Catalysts, Global Reach, Biocogniz, Atal Incubation Centre

About BIBT

Dr. B. Lal Institute of Biotechnology stands as a leading institution in biotechnology, delivering advanced education, cutting-edge research opportunities, and industry-aligned training to prepare students for success in the dynamic biotech industry. Renowned for achieving the highest placement rates in the sector, we are recognized for our world-class infrastructure and sustainable campus that inspire innovation. Our global alumni network of over 2,500 professionals is shaping the future across premier industries and research institutions worldwide. As the academic extension of Dr. B. Lal Clinical Laboratory, a trusted name in healthcare, we are dedicated to nurturing the next generation of scientists, researchers, and innovators. With a strong emphasis on practical learning, interdisciplinary research, and strategic industry collaborations, BIBT drives transformative progress in healthcare, agriculture, and environmental science.

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Awarded as Excellence in Skill Development by The Economic Times, 2024