



**MGMUNIVERSITY**  
AURANGABAD



## **INSTITUTE OF BIOSCIENCES & TECHNOLOGY**

### **PROFESSIONAL DEGREE PROGRAM**

### **B.TECH. BIOTECHNOLOGY**

<b>Professional Degree Awarded</b>	<b>B.Tech. (Bachelor of Technology)</b>
<b>Duration of the Degree Program</b>	<b>Four Years Bachelors Research Program</b>
<b>Semester</b>	<b>Eight (8)</b>
<b>Intake</b>	<b>30</b>
<b>Tuition Fee</b>	<b>Rs.1,10,000/-</b>

#### **PROGRAM OVERVIEW**

The program focuses on understanding how biochemical knowledge and processes can be applied to real-world situations, learning about the use of biological organisms, processes or systems to perform specific industrial processes, developing a solid understanding of science, technology and business management.

Biotechnology creates a vital link between biology and technology. Our program covers all aspects of the applied biochemistry and biotechnology industries, including commercialising technology, entrepreneurship, and intellectual property and patents, with lectures and case studies from business leaders and academics.

#### **PROGRAM DESCRIPTION**

Our B Tech Biotechnology program enables you to learn about various fields of biotechnology and their application. This course aims to inculcate the basic scientific techniques to advanced genetic engineering skills in the students and help them apply the traditional engineering skills to solve complex biological problems. These advanced techniques can be applied across range of organisms like bacteria, plant, and animals.

#### **SPECIAL FEATURES**

In this program, you can study modules relating to microbial, plant and animal biotechnology:

- Microbial - learn how to apply microorganisms to medicine, food, pharmaceutical, and environment
- Plant - genetically modify plants to increase crop growth and make them disease resistant

- Animal - understand the physiology and nutrition of animals to apply new technologies like CRISPR to improve, growth, welfare, and develop new disease treatments

In this program, you can:

- Choose the aspects of biotech that interest you most.
- Work with entrepreneurs -Undertake a group enterprise project involving collaboration with entrepreneurs to develop a business plan for a real-life sciences product or service
- In 3rd year, you can choose from a wide range of optional modules and complete a research project or dissertation involving a significant element of biotechnology.
- You can also apply for a year in industry with a range of employers including pharmaceutical companies, medical research institutes, environmental organisations and professional services networks.

## PROGRAM STRUCTURE

- The four-year program has 175 choice-based credits to equate the professional degree
- Specialized experimental training with special attention to each individual through the 'Exploration Workshop'
- Special Open Elective courses for students per semester
- Specialized labs with highly automated instruments
- Interactive learning with e-classrooms
- A complete package with an idea about various fields associated with biotechnology and life sciences

## PROGRAM CONTENTS

Wide variety of electives from multiple disciplines with specialization tracks in -

Molecular biology, Genetic engineering, RDT, Immunology, Advance techniques of Biochemistry, Fermentation technology, Genetics, Plant Breeding & molecular Genetics in last year Bachelors Research program etc.

## TEACHING AND LEARNING

- You will spend time in the laboratory, lectures, tutorials and seminars, as well as undertake site visits, a group project and a research project to aid the understanding of real-world application.
- Teaching and learning will be delivered using a variety of methods. A typical week in your first year of study will comprise approximately 30 hours of activity, of which approximately 15 hours will be timetabled study, such as interactive/active learning lectures, videos, tutorial sessions, laboratory classes and 15 hours will be independent or self-directed study.
- As you progress through the course, an increasing emphasis will be placed on independent study, and this reflects you applying your knowledge and skills in individual projects.
- The course contains strong practical elements. This commences in year 1 with 'Introduction to laboratory science' (semester 1) and 'Introduction to experimental biology' (semester 2) which will enable you to develop basic experimental and data analysis skills.
- In year 2, the Experimental Design modules (semester 1) will enable you to develop experimental skills, which are closely aligned to your degree programme. In Semester 2, you will take an intensive, degree specific Research Skills Module (RSM) module where you will have the opportunity to learn key experimental skills and design and analyse simple experiments relevant to your degree.
- In year 3, students carry out an independent research project. This can involve laboratory or field-based research or you can opt to conduct a non-laboratory-based project, such as education, business and science media projects. All of these projects contain a research element and will require you to both generate and statistically analyse data.
- In the 4thYear, you will carry out an independent real time project with industry.

## DISABILITY SUPPORT

Practical support and advice for current students and applicants is available from the Disability Advisory and Support Service. Email: [admin@mgmibt.com](mailto:admin@mgmibt.com)

## PLACEMENTS AND CAREER OPPORTUNITIES

Our graduates may choose to work in industry, academia or to work for a biotechnology company. Career options include work as a microbiologist in the food industry, a geneticist in the field of medical research, or one of many other possibilities, such as in the pharmaceutical or agriculture sector. You are not limited to the biotechnology industries, however, and may go into a variety of careers. Find out more about how we help our students prepare for the workplace and the careers and the careers our graduates go into within and outside the lab.

## ALUMNI

Our students were placed in different companies like Serum Institute, Pfizer, Wockhardt, Mahyco, Bejosheetal, Ajit seed, Serum, Lupin, Biocon, Aptuit Informatics, Bigtec, BioImages India, Innoplexus, Genotype, Helix Infosystem, Mascon life Science, Novo Informatics, Krushidhan, Ocimum Biosolution, Infosys, Wipro, Dr. Reddy's Lab, GlaxoSmithkline, Novozyme, FDC, Harman, Panacea Biotech, Reliance Life Sciences, Bioera, Ankur seeds, Nath Seeds, Sygene International, Monsanto India, DuPont, Nuziveedu Seeds, Jindal Seeds, Advanta Limited, Rallies India, Metahelix, Springer, Krushidhan, Dr. Reddys, Biocon, National Institute of Virology, National Chemical Lab, Government agriculture department and university, Government and private colleges etc.

## INDUSTRY COLLABORATION

At the MGMUIBT we know the value of working together. We break down barriers and get involved; we collaborate across disciplines, cultures to solve state, national and global problems; and we transform people's lives by making positive change across India and the world.

Partner with us today, and discover what a difference we could make to your - our - future.



### Contact us

Admission: <https://mgmu.ac.in/admissions/>

Email: [admin@mgmibt.com](mailto:admin@mgmibt.com) and [director@mgmibt.com](mailto:director@mgmibt.com); Website: [www.mgmibt.com](http://www.mgmibt.com)

University website: <https://mgmu.ac.in/>; Mobile: 9921154640

MGM University, established by the widely revered Mahatma Gandhi Mission Trust, is a self-financed State University. It has the 2(f) status of the University Grants Commission of India (UGC) and is approved by the Government of Maharashtra.

**MGM Institute of Biosciences & Technology** is a constituent college of **MGM University** from 2019. The institute has excellent infrastructure, and students can access all the facilities, in the areas of sports and culture, in the environs of the green, safe, and eco-friendly, **MGM Campus**.