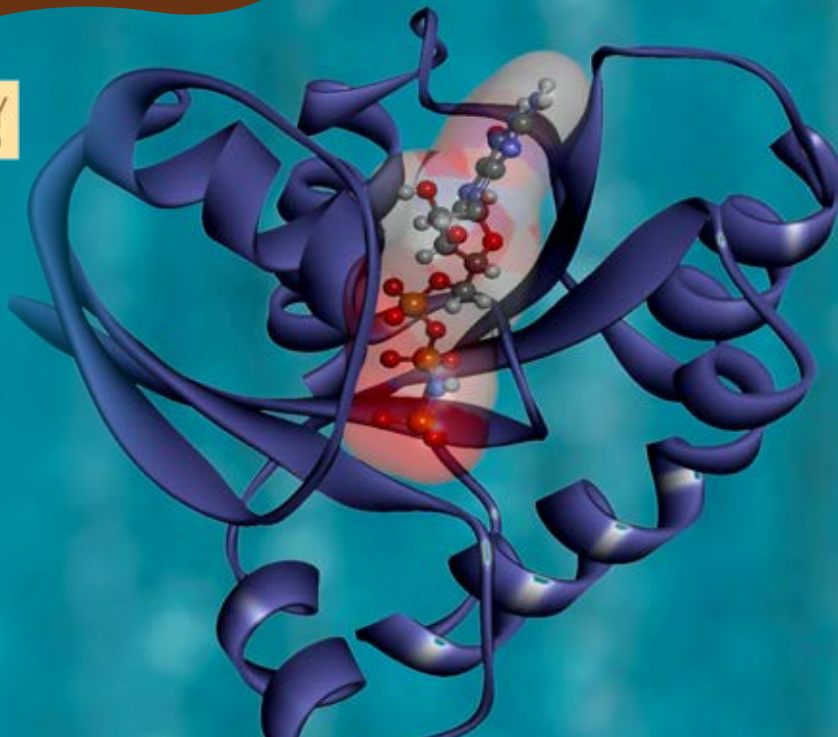




MGMUNIVERSITY
AURANGABAD



INSTITUTE OF BIOSCIENCES & TECHNOLOGY

PROFESSIONAL DEGREE PROGRAM

B.SC. (HONS.) BIOINFORMATICS

Professional Degree Awarded	B.Sc. (Hons.) / Bachelor of science
Duration of the Degree Program	Four Years Bachelors Research Program
Semester	Eight (8)
Intake	40
Tuition Fee	Rs.90,000/-

PROGRAM OVERVIEW

One of the fastest emerging scientific fields, Bioinformatics is a biological study which aims to get a better insight into genome, proteome, biological process, metabolic pathways etc. It is a study of information on biological data, and its analysis to understand the genetic diseases, unique adjustments and modifications in the genes of organisms.

PROGRAM DESCRIPTION

Our B.Sc. (Hons.) Bioinformatics program enables you to learn about the science behind Bioinformatics while also looking at how to succeed in a career in the bio industry. In this program, you will learn about life sciences, computer sciences & information technologies and how to knot them together to solve complex biological problems.

SPECIAL FEATURES

- B.Sc. Bioinformatics (Hons) is an interdisciplinary field of science that deals with biological information. It is a fusion of many fields such as computer science, mathematics, engineering, and statistics combined to examine and exemplify the biological data.
- It will equip you with the knowledge and skills to tackle real-world life science problems from an informatics and computational perspective.
- The program makes one capable of carrying out numerous significant research and activities such as designing drugs, comparing genetic data among different and same species, characterisation of proteins, etc.

PROGRAM STRUCTURE

- The four-year program has 168 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

Along with the study the basics of Life sciences, Mathematics, Chemistry, Computer programming, Molecular Biology, Genetic engineering, Biochemical, Genomics, and Proteomics a wide variety of electives from multiple disciplines with specialization tracks in -

Fundamentals of Molecular Biology and Genetic Engineering, Computational Methods in Bio-molecular Sequence Analysis, Object Oriented Programming in C++,C' Language & Programming, introduction to Biochemistry & Bioinformatics, Computational Methods in Bio-molecular Sequence Analysis 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 of 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 Year 4, 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

PLACEMENTS AND CAREER OPPORTUNITIES

After completing degree, students can go for sequence assembly, database design and maintenance, sequence analysis, proteomics, pharmacogenomics, pharmacology, clinical pharmacologist, informatics developer; Computational chemist, Bio-analytics and Analytics, etc. Our graduates may choose to work in industry, academia or to work for a bioinformatics company. They can also find work in Pharmaceutical and Biotech Companies where bioinformatics technologies are applied throughout the drug discovery process. You will also find opportunity in data analysis companies. Candidates have also the option of taking up teaching jobs in public institutions if you have a skill in teaching.

ALUMNI

Our students were placed in different companies like Illumina, Strand Lifescience, Biomax informatics, Genedata, Bio matters, Collaborative Drug Discovery, Bio-Rad Laboratories, Biobase, Innoplexus, Thermo-fisher, Biova, DNA STAR, DNAnexus, QluCore, CLC bio, 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 the India and world.

Partner with us today, and discover what a difference we could make to your - our - future. We engage with big companies to small scale companies like Mahyco, wockhardt, Metahelix, Illumina, Ulman Lab, Matrix Life sciences, Probus, CFTRI, NIN, CIFE



Contact us

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

Email: admin@mgmibt.com and director@mgmibt.com; Website: 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**.