

What is biotechnology?

Biotechnology is the modern biology that comprises diverse and sophisticated techniques to exploit cellular processes of bacteria, plants and animals to obtain highly useful and novel products. In recent years, it has been proved to be a boon for modern agriculture and industry where its skills are applied to develop and design uniquely improved varieties of crops, new pharmaceutical products, plethora of chemicals, cosmetics, fertilizers, growth enhancers, processed foods, health care aids and environment-related substances.

What is Bioinformatics?

Bioinformatics is computational biology meant to store, disseminate and analyze biological information related to phylogeny, genes, proteins and cellular processes. This modern biological science is the result of marriage between Biology and Computer Science mainly employed to process background schematic details for biotechnological interventions. Hence, it is also referred as IT-enabled Biotechnology.

Gospel for the future

“Biotechnology has delivered a wave of technological change that is as radical and more pervasive than that brought about by IT. Employment generation, intellectual wealth creation, entrepreneurial opportunities and industrial growth are the compelling factors that have warranted a focused approach for this sector.

Biotechnology as a business segment for India has the potential of generating revenues to the tune of US\$ 5 Billion and creating one million jobs by 2010 through products and services. This can propel India into a significant position in the global biotech sweepstakes. Biopharmaceuticals alone have the potential to be a US\$ 2 billion market opportunity largely driven by vaccines and biogenics. Clinical development services can generate in excess of US\$1.5 billion whilst bioservices or outsourced research services can garner a market of US\$1 billion over this time scale.

The balance US\$500 million is attributable to agricultural and industrial biotechnology.”

The above lines have been lifted from the Strategy Statement of the Department of Biotechnology, Ministry of Science and Technology, Govt. of India (2005) to tell the bright young Science students of the country what they ought to do and what they ought to opt for.

IMBAS

Institute of Modern Biology and Applied Sciences is the brainchild of the public Charitable trust **Leeds Foundation** conceived and established with a mission for providing quality higher education, training, research, consultancy and public services in the field of modern biology (Biotechnology and Bioinformatics), Software (IT) and Entrepreneurship.

Leeds Foundation

The Public Charitable Trust Leeds Foundation was established on May 10, 2002 with its address as Leeds Foundation, Asian Acres, Nahar Chowk, Bailey Road, Patna, P.O. Danapur Cantt., P.S. Danapur, Dist. Patna (Bihar). Since, 2002, the trust is running a CBSE affiliated premium Secondary School named Leed’s Asian School for those who nurture ambition for their children to excel in life. After its tryst with qualitative secondary education, the trust decided to venture into the arena of high-tech. higher education in areas connected to modern employment trends. After IT, BT is the next thing that promises a bright future for the modern youth and bright people.

B.Sc. Biotechnology

B.Sc. program in Biotechnology is meant for those young students who have passed their I.Sc. (or +2) with Biology and have decided to plunge early into the field so that they can prepare themselves well in advance for job opportunities in this skill area. They would be required to undergo an entrance test designed to assess their applicability and aptitude for a career in the demanding field of Biotechnology.

M.Sc. programs in Biotechnology & Bioinformatics

IMBAS’ M.Sc. programmes in Biotechnology and Bioinformatics are ideally meant for the enthusiastic young people who think to lead a career oriented inspired life through sheer dedication, drive and zeal. Good training is IMBAS’ promise, excelling in life would be its pupil’s. Simply helping students to get good jobs is not IMBAS’ goal, rather, propelling them to excellence is its motto.

Eligibility for M.Sc. programs

If you are a graduate in any subject of Science stream (Physics, Chemistry, Botany, Zoology, Mathematics, Biotechnology) with 45% aggregate marks, you are eligible for admission into IMBAS’ M.Sc. programmes in Biotechnology or Bioinformatics. You would have to take an entrance test, clear the exam, and then, register for the programs.

Syllabi

B.Sc. and M.Sc. programmes in Biotechnology and Bioinformatics (Session: 2006-09/06-08) would employ standard syllabi prescribed by the affiliating university and that are in consonance with the recommendations of the Department of Biotechnology, Ministry of Science and Technology, Govt. of India, New Delhi.

Faculty

IMBAS’ exclusive Faculty for Biotechnology and Bioinformatics comprises eminent professors and lecturers with an impeccable record of excellence in teaching and research. Armed with M.Sc./Ph.D. degrees in life Sciences and Biotechnology, outstanding performance has been the basic parameter for their involvement with IMBAS. Laboratory technicians of high caliber and exceptional expertise man the state-of-the art labs. of IMBAS. **IMBAS is run by the people who know whom to deliver, when to deliver and how to deliver.**

Chief Consultant for IMBAS

IMBAS' Chief consultant is Dr. (Prof.) Jainendra Kumar, who is Professor & Head at the Department of Botany and Biotechnology, College of Commerce, Patna 800 020, Bihar (India). Well-known and highly respected for his outstanding teaching methods, knowledge, expertise and demeanor, Dr. Kumar has been involved in charting a decisive direction to biotechnology and life science teaching in Bihar. He has nine books, several general articles and more than 100 research papers to his credit. He has till date supervised 14 research students for successful award of Ph.D. degree. He has visited Japan, Thailand and other countries for his involvement in research and conferences. In 2001, he launched a centre for 3-year degree vocational course in Biotechnology under UGC scheme at the department of Botany, College of Commerce, Patna, which is now a leading centre for B.Sc. Biotechnology with outstanding infrastructure, exclusive laboratories, protocols, expertise and skill of its own. By agreeing to guide IMBAS to achieve its cherished goal, Dr. Kumar provided IMBAS the required impetus and momentum that IMBAS needed for its par excellence.

IMBAS' Specialties

Inspirational teaching methods, procedural learning tools, perfectionist's training in laboratory protocols and techniques, inculcation of research aptitude, induction of discipline and culture, personality orientation, interactive project works, industry-oriented on-job training, campus job opportunities and national/international linkages are specialties of IMBAS that can not be equaled by any. Come to IMBAS for a blend of qualities with opportunities.

Biotechnology & Bioinformatics

If any institution claims to teach biotechnology it must have expertise in bioinformatics too. Both are integral and inseparable. Without learning the tools and techniques of bioinformatics, biotechnology learning is

incomplete. IMBAS claims to be the only institution in Bihar to have complete expertise in both areas.

What we have?

From books, journals, on-line teaching materials, audio-visual aids, computers, software's, teaching packages and institutional linkages to classrooms, exclusively designed laboratories and equipments, IMBAS has all the infrastructure that an ideal institution teaching biotechnology and bioinformatics should have. IMBAS exclusive softwares in the area of bioinformatics are –

1. Rasmol
2. Chimera
3. Protein Explorer
4. Deep View
5. Grasp
6. Vega ZZ
7. Phylip
8. QAlign
9. Cn3D
10. Escher NG
11. ClustalX
12. RestrictDNA
13. ArgusLab
14. HEX
15. ArgusLab
16. Mega

.... And a lot more



Leeds Foundation's

Institute of Modern Biology and Applied Sciences

Education, Research, Consultancy & Public Services in Biotechnology & Bioinformatics

<http://www.imbas.edu.in>

With complete laboratory expertise and outstanding faculty

B.Sc. Biotechnology,
M.Sc. Biotechnology
M.Sc. Bioinformatics



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