

# PG DIPLOMA IN BIOINFORMATICS

### **DEPARTMENT OF BIOCHEMISTRY**

(Sponsored by DST-FIST, DBT and UGC-SAP-DRS-II)

## SHIVAJI UNIVERSITY, KOLHAPUR (2023-24)

(Course time 7:30 am to 10:30 am)

#### **INTRODUCTION**

Bioinformatics is a newly emerging branch in the field of life sciences. Bioinformatics is information technology applied to the management and analysis of biological data with the help of computers. It is a field in which biological information collected, compared, studied and analyzed to find the interrelation between them for solving structural, functional and evolutionary relationships. The biological information stored in various databases is available online through internet. Bioinformatics may open a new era of therapeutics research which will reduce the time, cost and labor in the process of drug discovery.

#### **FEATURES OF COURSE**

The objective to start this diploma course is to enhance the job opportunities for the science graduate/post-graduate students, medical, pharmacy, agriculture, veterinary and engineering students in a newly emerging field of bioinformatics and drug designing. After completion of this one year diploma course students can be accommodated in any university/colleges, research institutes, and national/multinational drug designing companies.

#### **COURSE CONTENT**

Course covers various topics; Sequence Analysis, Homology Modeling, Drug Designing, Molecular Modeling, Molecular Docking, Molecular Dynamics (MD) Simulations which are required for multinational pharmaceutical companies for new drug discovery. Further, Genomics, Proteomics, Protein / Nucleic acid structure prediction, Gene prediction, Data mining, Microarray, biodiversity, data analysis, etc. are also covered. Today, there is a need to develop biological databases, which acts as information super highway for researcher, academicians, and industrialists, so programming languages and computer basics are also included.

#### **ELIGIBILITY CRITERIA**

B.Sc./M.Sc. Degree in Science (Life Science: Biochemistry/Biotechnology/Microbiology/Botany/Zoology; Chemical, Physical, Mathematical, Statistics, and Computational sciences) pharmacy, medical, engineering, agriculture and veterinary science.

\* "Admission on First Come, First Served Basis"

http://sukapps.unishivaji.ac.in/pgentrance/#/login

(Candidates who have already applied need not apply again)

FOR FURTHER DETAILS PLEASE CONTACT:-

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