

**Revised Course Structure and Syllabus of
M.Sc. Bioinformatics Program (2024)**



**CENTRE OF BIOINFORMATICS
INSTITUTE OF INTERDISCIPLINARY STUDIES
University of Allahabad**

UNIVERSITY OF ALLAHABAD
CENTRE OF BIOINFORMATICS

Programme: M. Sc. Bioinformatics

Duration: 2 Years (4 Semester)

Total Credit: 98 (Semester Wise: 24 + 24 + 24 + 26 = 98)

Paper Code	Paper Name	Credit
SEMESTER – I		24
BIF501	Biochemistry and Biophysics	3
BIF502	Genomics and Proteomics	3
BIF503	Mathematics and Statistics	3
BIF504	Scripting Languages and Algorithm for Bioinformatics	3
BIF505	Sequence Analysis and Molecular Phylogeny	3
BIF506	Communication Skill development	3
BIF531	LAB – Biological Databases and Sequence Analysis	3
BIF532	LAB – Programming in PERL, R, and Python	3
SEMESTER – II	TOTAL	24
BIF511	Translational Bioinformatics	3
BIF512	Networks and Systems Biology	3
BIF513	Structural Bioinformatics	3
BIF514	Datamining and Warehousing of Biological Data	3
BIF515	Transcriptomics and Metabolomics	3
Elective- Any One		3
BIF516	Agriculture Bioinformatics	
BIF517	Biomedical Data Mining	
BIF533	LAB – Biomolecular Modeling and Simulation	3
BIF534	LAB – JAVA and MySQL	3
SEMESTER – III	TOTAL	24
BIF521	Applied Bioinformatics	4
BIF522	Computer Aided Drug Designing (CADD)	4
BIF523	DNA Computing	4
Elective- Any One		3
BIF524	Stem Cell Bioinformatics	
BIF525	Research Methodology	
BIF535	LAB – Chemoinformatics & CADD	3
BIF536	Mini Project	6
SEMESTER – IV	TOTAL	26
BIF537	Dissertation	26