

Syllabus for PhD Admission Test

Bioinformatics

General

Structural Biology, Biological Computation, Functional and Comparative Genomics, Biological Databases, Molecular Biology, Microbiology, Immunology, Introduction to Operating Systems & Programming Languages, Advanced Statistics & biostatistics, Object Oriented Programming, Data Structures, Perl Programming

Algorithms, Tools, and Database Development:

Database Design and Development, Advanced Scripting Languages for Bioinformatics, Advanced Algorithms for Bioinformatics, Tools Development & Validation

Machine Learning:

Hidden Markov Model (HMM), Artificial Neural Network (ANN), Support Vector Machine (SVM), Genetic Algorithm (GA), Stochastic Context Free Grammar (SCFG)

Drug Designing:

Structural Bioinformatics, Computational Drug & Vaccine Design Techniques, Chemoinformatics, Molecular Simulation