Advanced Post Graduate Diploma in Bioinformatics

Bioinformatics has emerged as an interdisciplinary thrust area in the field of science merging Biology, Computer Science and Information Technology. It applies concepts of Computer Science and Information Technology to solve complex problems of Life Scince. Computer databases and algorithms are developed for the purpose of speeding up and enhancing biological researches. It has wide applications in the human Genome project. The research going on this area requires many trained professionals. The one year Advanced Diploma program in Bioinformatics has been designed to enhance job prospects in IT and Pharmaceutical industries for students with basic science degrees.

Program Details:

Duration: The Advanced Post-Graduate Diploma is a full time course of one-year duration consisting of two semesters.

Eligibility:

1. Master's Degree in Life Sciences, Physics, Mathematics, Chemistry, Computer Science, Agriculture science
2. B. Pharm (Bachelor's degree in Pharmacy)
3. B. Tech (In any engineering branch)*
4. M.B.B.S, B.D.M.S, B.A.M.S

* All the candidates should have Mathematics as a subject at (10 +2) level.

Course Curriculum:

The course curriculum is so designed to include training in major area of Bioinformatics. Each semester will have six papers covering a wide range of topics.

Semester I

PBI 101*. Introduction to Modern Biology/ Basic Mathematics
PBI 102. Statistics for Bioinformatics
PBI 103. Introduction to Computing
PBI 104. Fundamentals of Bioinformatics
PBI 105. Structure of Biomolecules
PBI 106. Genetics, Cell and Molecular Biology
*Students with Biology background will opt for Basic mathematics and those with Mathematics background will opt for Introduction to Modern Biology.

Semester II

PBI 201. Genomics and Transcriptomics
PBI 202. Data Structures and Algorithms
PBI 203. Biological Data Banks, Data Mining and Computational Biology
PBI 204. Rational Drug Design
PBI 205. Proteomics and Molecular Structure Prediction
PBI 206. Object-Oriented and Database Programming for Bioinformatics

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