

Advance Diploma in Bioinformatics

Objective of the Course:

Students having knowledge of Life Sciences, Physical and Mathematical Sciences – will be given an integrated outlook of bioinformatics and will be trained so as to be able to

- 1) Cater to the information needs of the researchers in life sciences
- 2) Comprehend and utilize existing computer software in Life Sciences;
- 3) Offer computing skills to develop or extend software for sequence analysis, database management and molecular modelling;
- 4) Utilize their skills in school, college and research libraries to provide scientific support”;
- 5) Appreciate and participate in research work involving life sciences and the molecular level and
- 6) Function as effective, information analysis in industries especially in those involved in biotechnology research and development.

Learning Outcomes:

After the completion of course, the students will be able to:

- Apply Bioinformatics in the day to day study and research needs.
- Use simple to complex Bioinformatics applications
- Develop simple Bioinformatics applications

Duration of the Course (in hours) 360 hrs

Appr. Fees (INR): Rs.10,000/-

Minimum Eligibility Criteria and pre-requisites, if any 12th Pass with Biology as a subject

Outline of Course

S. No	Topic	Minimum No. of Hours
1	Basic Molecular Biology & Genetics	60 hrs
2	Basic Bioinformatics	80 hrs
3	Computer Architecture and Programming in PERL	80 hrs
4	Basic mathematics and Statistics	60 hrs
5	Application of Bioinformatics in Structural Biology	20 hrs
6	Project	60 hrs
Theory / Lecture Hours:		200 hrs
Practical / Tutorial / Lecture Hours:		160 hrs
Total Hours:		360 hrs

Books recommended for reference and reading: Bioinformatics sequence and genome analysis by W.B. Mount

Group Code: BINF
Course Code: AD01

Group Name: Bioinformatics
Course Name: Advance Diploma in Bioinformatics

Short Term Courses – NIELIT