

CSIR Integrated Skill India Initiative

Certificate Courses on Advanced BioInformatics



CSIR-IICB proposes one training course in Advanced Bioinformatics. This course is aimed at imparting skills on data handling using open source bioinformatics tools. At the end of the program, the participants are expected to analyse Next-Gen sequencing data. The courses are targeted to candidates having a postgraduate biological background.

Educational Qualifications: Pursuing/Completed- Bachelor of Engineering (BE) in

Computer Science/Bachelor of Technology (B.Tech) in

Information Technology / B.Tech in Biomedical Engineering / PG in any stream of Science/Technology/Pharamacy/Medicine

Venue Of the course : Jadavpur Campus & TRUE Campus, Salt Lake

Duration : 2 weeks(19th Feb to 01st March 2024)

Course Fees : Rs 5000/- (Inclusive of GST)

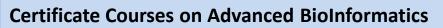
Content for Bioinformatics Course:

- Sequence alignment techniques: pair-wise & multiple sequence alignment
- Phylogenetic analysis for biological sequences
- Introduction to In-silico molecular modeling: Energy optimization (different methods), Homology modeling.
- > In-silico Drug designing: Structure based & ligand based drug designing
- Basics of molecular dynamics simulation: molecular dynamics to compute properties of protein structures and their flexibility
- Computational genomics: gene prediction, pattern searching, profile/motif based searching
- Basic statistics using R
- Genomics
- An introduction to Sequencing technology and output data types
- Basics of library constructions
- Quality Control of sequenced data and data cleaning for genomic and metagenomic DNA.
- Differential expression analysis using RNAseq technology. Metagenomics
- Metagenomic 16S rRNA data analysis for understanding biological diversity.
- Introduction to the Galaxy suite of tools





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Code - IICB-BIO

Salient Features of the course:

ч	Theory and practical sessions are as per the course curriculum
	Hands on training on Programming and Data handling.
	Sequence Analysis with Next-Gen sequencing data.
	Continuous assessment through theoretical assignments & practical
	examinations for evaluation
	A certificate will be issued to the successful candidates
	Seats Available: 10. It is mandatory for candidate to carry laptop to
	participate in the course.
	Candidates can apply for multiple courses. In such cases, shortlisting
	will be based on fulfilment of eligibility conditions, availability of seat
	and number of single choice applicants for the course.
	Admission process is completely online including the payment of fees.
	Once a candidate is shortlisted for a particular course, any request for
	change of course will not be accepted.
	Candidates cannot take admission simultaneously in two different
	courses
	Only those candidates will be considered eligible for the course who
	have received at least single dose of COVID vaccination approved by
	Govt. of INDIA
> Refunds to the enrolled candidates will be made by	
the institute in case of cancellation of the course	
due to low batch strength. Such candidates will be informed	
about withdrawal of course and refund of fees	
	within stipulated time.

