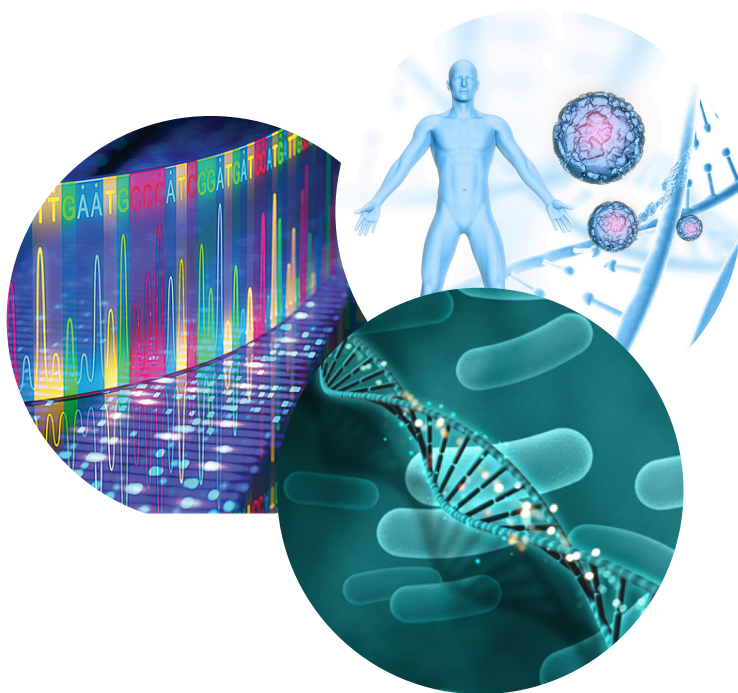


Bioinformatics Learning Programs at GeneSpectrum Exploring the Microbiome



About this program: The field of Life Sciences is continuously evolving with new tools and techniques coming into the picture. In recent years Bioinformatics has seen exponential growth and has become an essential part of every Biological project. Therefore, having an understanding of various Bioinformatics tools, techniques and methods have also become pretty important to every person working in the Life Sciences domain. With this view in mind, we have developed the **Bioinformatics Learning Programs @ GeneSpectrum (BLPG)**.

BLPG provides various learning options for participants to excel in different areas of Bioinformatics. We have training programs ranging from 1 month to 6 months and these programs can be attended online. Participants of BLPG will learn different methods, tools, and techniques of Bioinformatics and will be able to apply these techniques in their research and career. The advanced level of BLPG also covers training in programming languages like python and R. The BLPG provides hands-on training in Bioinformatics and participants apply their learnings to complete a capstone project at the end of the course.

Prerequisites: Basic understanding of biology and enthusiasm to learn. No computing or programming experience is required.

Who can take this course: Bachelors and Masters degree students, PhD. Scholars, Clinicians, Researchers and Teachers from Pharma, Biochemistry, Microbiology, Biotechnology, and other allied sciences.

Programs under BLPG

3/6 months Training with Project

There are many students who want to learn Bioinformatics in more detail and make themselves ready for the industry. For such participants, we have designed 3 and 6 months training programs under BLPG. In these programs, we cover specialized Bioinformatics topics in **NGS Data Analysis** for DNA-Seq and RNA-Seq datasets. The participants will also get to learn **Linux command line**, **Python programming** and **R programming** for Biological data operations. There are 3 modules to choose from.

Module 1: Setting up the Base

- Bioinformatics Databases
- Sequence Analysis - Pairwise sequence alignment and BLAST
- Multiple Sequence Alignment
- Molecular Phylogenetics
- Python Programming

Module 2: Microbial Variant Analysis

- Linux for Biologists
- Sequencing Technologies and Terminologies
- De Novo Genome assembly (for Prokaryotes)
- Genome Annotation (for Prokaryotes)
- NGS Data Analysis workflow
 - Different file formats
 - Tools and their usage on the Linux command line
 - Variant Calling workflow
 - Variant annotation and interpretation

Module 3: Understanding Microbiome Diversity

- R programming for Bioinformatics
- 16s Metagenomics data analysis workflow
 - Diversity Analysis - Alpha and Beta Diversity
 - Taxonomic Identification
 - Functional Analysis
- Whole genome shotgun sequencing data analysis
 - QC, Taxonomic profiling and Functional analysis
- Pipeline development

Programs under BLPG

3/6 months Training with Project

3 months Training:

- The first module is common for all the programs.
- Participants opting for 3 months training program will have the option to select any one module from Modules 2 and 3.
- The training will be completed in 10 weeks and the remaining time will be given to work on a project.

6 months Training:

- Participants will be trained in all the 3 modules.
- The training schedule will span over 4 months and the participant has to select a topic to work on the project for the rest of the time.

Fees:

- 3 months training program: INR 35000 | USD 550
- 6 months training program: INR 60000 | USD 850
- The successful participants will be awarded an e-certificate.
- There will be 2 sessions of 2 hours each every week. The sessions can be organized during the weekdays. Participants can solve the assignments in their free time.
- The training offered is one-to-one. So participants can start the training on any day.
- Training can be conducted online and offline. For offline training, participants will have to come to our office in Pune.
- Each participant will be provided with presentations, recordings, and reference material.
- These training programs can be tailored as per the requirement of the participants

FAQs:

1) What is the last date of registration?

We have batches starting every month. You can register for any upcoming batch. Contact us to know the upcoming batch.

2) What if I miss some of the sessions?

We provide a recording of each session. You can watch the recording and complete the topic

3) How can I get answers to my doubts post-session?

You can ask your doubts via email or WhatsApp

4) Is there any discount on the fee?

There is no discount on the fee. However, we have a special discount for group registration of 4 or more. Contact us to know more.

For registration, queries please contact us at:

- training@genespectrum.in
- Whatsapp - +91 7021386045