



**Be a Bioinformatician!**  
Applications invited for

# Certificate Course in Bioinformatics

**Course Duration - 8 Weeks**

Course Commences  
**February 01, 2025**



## Course Fee:

Regular: ₹13,000/-

MAHE Students/Research

Fellows/PhD Scholars : ₹8000/-

International: 300 USD

**Course fee is NOT refundable**

**Course Credits: 4**

**Number of Seats: 20**

## Eligibility

Students, PhD Scholars and faculties of

- Basic Sciences
- Life Sciences
- Pharmaceutical Sciences
- Medicine/Dental
- Computer Science
- Biomedical Engineering
- Electronics/Data Science
- Statistics

## Contact:

The Coordinator

Certificate Course in Bioinformatics

Manipal School of Life Sciences

Planetarium Complex, Manipal - 576104

Ph: 0820 - 2922058

Email: director.msIs@manipal.edu

### About the Course:

Bioinformatics is a discipline focusing on the development and application of theoretical models and computational methods for the analysis of biological or biomedical data. Computers are used to gather, store, analyze, interrogate and integrate biological and genetic/genomic information which can then be applied to countless questions related to human health. There is an overwhelming demand for trained Bioinformatics professionals who can use information technology to store, extract, organize, analyze, interpret and utilize the biological data. This course intends to provide practical training along with projects, to help work competently in a Bioinformatics environment. The knowledge acquired will be an asset to address your research inquiries and also towards future employment.

### Course Features:

The Course organized by Manipal School of Life Sciences (MSLS) involves an understanding of the application of Bioinformatics in all the fields of biological sciences. Activities include fully interactive hands-on sessions in bioinformatics tools, self-learning modules, demonstrations and in-class assignments. Each candidate will have hands-on tasks, coursework, and projects using computers with highspeed internet. The topics taught hands-on are:

- Command Line Scripting
- Computational Biology
- Databases and Data Mining
- Genomics
- Molecular Phylogeny
- NGS Data Analysis
- R Statistical Packages
- Systems Biology

**Course Timings: Start Date:** 1<sup>st</sup> February 2025

**Days:** Monday, Tuesday, Wednesday and Thursday

**Time:** 5.00 PM to 7.00 PM

**Mode of Classes:** Hybrid (Onsite + Online)



**Online Registration**

<https://sis.manipal.edu/CertificateCourses.aspx>



Certificate Course  
on  
**Python Programming for Health Sciences**

» **Beginner level**

» **Offline classes**

» **Hands-on**

*This course is specifically designed for professionals in Health Sciences with zero-prior-experience in programming*

**Eligibility:**

1. Undergraduate & Postgraduate students of Health/Life Sciences
2. PhD Scholars in Health/Life Sciences
3. Faculty of Health/Life Sciences.
4. **NO prior knowledge** of programming is necessary

**Starting**



**Programming** is **NOT** as intimidating as it is perceived to be!

At its core, programming is simply about **breaking down bigger problems** and **creating solutions**. It's a mindset and a skill that's both learnable and manageable.

**Whether** you're aspiring to enter the fields of data science, AI and machine learning, or trying to explore how programming can be applied to health sciences, or someone who has missed the tech-train due to life circumstances, join us to explore and learn the possibilities of programming. **Python** is an excellent **starting point** for beginners.

<b>Days:</b>	<b>Mondays</b>		<b>Wednesdays</b>		<b>Fridays</b>		
<b>Time:</b>	<b>5.30 – 6.30 PM</b>		<b>5.30 – 6.30 PM</b>		<b>5.30 – 6.30 PM</b>		
<b>18 – 20 classes</b>							

**Topics covered:** Introduction to computing logics and circuits, Python data types- int, float, str, list, tuple, dictionaries, bool, range; Operators- arithmetic and logical; conditional statements; Loops- for, while; built-in functions, Creating functions; Some important libraries for scientific and numeric calculation, Plotting graphs. Biological signals and the hardware to capture signals, principles of signal processing, integrating python programs to capture and process biological signals. The course concludes with a **praxis** project.

**Requirement:** Laptop, with good battery backup, and admin privileges to install/uninstall software.

**Fees:** MAHE category – INR 4000, Non-MAHE category – INR 4500

**Link for registration:** <https://sis.manipal.edu/CertificateCourses.aspx> **course code: CG3**



## Certificate Course on Scoping Review Methodology

Centre for Evidence-informed Decision-making (CEIDeM)  
Cochrane Affiliate Centre - MAHE (Cochrane India Network)  
Prasanna School of Public Health (PSPH)  
Manipal Academy of Higher Education (MAHE), Manipal

**February**  
**10 -13, 2025**



### About Us

The Centre for Evidence-informed Decision-making is based at Prasanna School of Public Health, MAHE, Manipal. The centre aims to meet the public health evidence needs across the globe. Presently, we have grown into an international network with global collaborations, including many universities, public health organizations, and NGOs.

### Overview

This scoping review workshop provides theoretical introduction and practical sessions on scoping reviews, developing a search strategy, designing a scoping review protocol and hands on experience in developing a protocol. The participants will understand the scoping review protocol, choosing right question, conducting search and scoping review methods with emphasis on finding and managing information.

This course includes student-centered classroom sessions by experts in the field. Students will learn in choosing the right review for their project work and improve their skills in conducting the scoping review selected based on their topic of interest.

### Who can attend ?

Faculties, doctoral & post-doctoral researchers, and postgraduates who are willing to curate high quality evidence in research.

### Learning Outcomes

Upon successfully completing this workshop, participants will be able to:

- ▶ Understand the role of scoping review in evidence-informed healthcare.
- ▶ Construct an answerable research question.
- ▶ Identifying the right selection criteria for literature that will answer the review question.
- ▶ Constructing complex searches to locate literature.
- ▶ Develop scoping review protocol.

### Course Fees

MAHE UG students	INR 2000
MAHE Researchers, Doctoral scholars, and PG students	INR 3000
MAHE faculty	INR 3500
Non MAHE	INR 4000

Number of participants: **Limited seats available**

Venue: **Interact 2A, Manipal**

Timings: **9.00 AM to 5.00 PM**

Registration link: <https://forms.office.com/r/9gsyjK6g9V>

Last date of registration: **06.02.2025**

*This course provides "Two" credit points on completion.*

*Participants are requested to bring their own laptops.*

### For more details contact

Dr Divya Sussana Patil

Research Fellow & Coordinator

CEIDeM, PSPH, MAHE. Manipal - 576104.



## Manipal Center for Natural Sciences (MCNS) *Center of Excellence*

organizes

### National level School on **Fundamentals of Space Radiation** *for scientists, engineers and space entrepreneurs*

A five day school to train students, scientists, engineers and space entrepreneurs

16<sup>th</sup> to 20<sup>th</sup> September 2024

**Eligibility:** Students currently enrolled in 3<sup>rd</sup> and 4<sup>th</sup> year B.E/B.Tech. or 1<sup>st</sup> & 2<sup>nd</sup> year M.Sc., Ph.D. students (in relevant fields) with good academic background and Young Professionals from space industry.

**Apply:** scan the QR Code or visit:  
[www.tiny.cc/mcnssparcapply](http://www.tiny.cc/mcnssparcapply)

Deadline: **23<sup>th</sup> August 2024**



#### Extended Training Opportunities

Based on the performance in the school, a limited number of students may be selected for advanced training in partner Universities in USA

Training supported by SPARC III program of Ministry of Education, Govt of India.

For More Information visit : <https://tiny.cc/mcnssparc>

@mcns.mahe

For further queries, please contact : 0820 292 3571 [office.mcns@manipal.edu](mailto:office.mcns@manipal.edu)

Image Source: ESA