

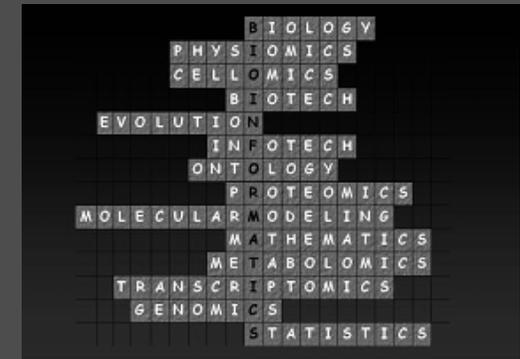


**Bioinformatics Centre  
University of Pune**

## **Modular Training Course in Bioinformatics for Life Science Teachers**

September 12 – October 5, 2011

<http://bioinfo.net.in/mtcbpune/>



**Organised by**  
Bioinformatics Centre  
University of Pune

**Funded by**  
Department of Information Technology  
Ministry of Communications and  
Information Technology (MCIT)  
Government of India

### **Course schedule**

September 12 – October 5, 2011 (six days/week)

**Target audience:** Life science teachers working in post-graduate centers of recognized universities/colleges/institutions with an interest in teaching and application of Bioinformatics.

**Pre-requisites:** Familiarity with basic usage of computers & Internet (knowledge of programming and experience of using bioinformatics tools is not a prerequisite)

**No of participants :** 30

### **Mode of training**

Classroom teaching & rigorous hands on sessions in computer laboratories.

### **Certification**

Certificate of participation with level of proficiency indicated will be awarded.

**Fees:** INR 5000/- (Includes course material, working lunch and tea/coffee during the day)

**Mode of application:** Online registration facility is available on workshop website. You may fill up the printed form or register online and print the online form. Send your registration form along with DD to Coordinators, MTCB, Bioinformatics Center, University of Pune, Pune - 411007

### **Last date of submission of application form & DD**

September 6, 2011

### **Date of announcement of list of selected participants**

September 7, 2011

**Accommodation:** Limited accommodation on 'first come first served' basis is available in the university guesthouse. The charges towards accommodation are to be borne by the participants.

**Course web site :** <http://bioinfo.net.in/mtcbpune/>

**Email :** [mtcbpune@bioinfo.net.in](mailto:mtcbpune@bioinfo.net.in) OR [mtcbpune@gmail.com](mailto:mtcbpune@gmail.com)

**Academic Advisor:** Prof. Deepti Deobagkar, Director

### **Course Coordinators**

Dr. Urmila Kulkarni-Kale and Dr. Sangeeta Sawant

### **Contact details**

Co-ordinators, MTCB  
Bioinformatics Centre  
University of Pune  
Pune - 411007

Email: [mtcbpune@bioinfo.net.in](mailto:mtcbpune@bioinfo.net.in) /  
[mtcbpune@gmail.com](mailto:mtcbpune@gmail.com)

Phone : 2025690195/ 25692039

Fax: 91 20 25690087

### **Course web site**

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## Modular Training Course in Bioinformatics for Life Science Teachers



Bioinformatics Centre  
University of Pune

### Preamble

Emergence and growth of Bioinformatics in the last twenty five years is one of the landmark events in the history of biological sciences. From 'stamp collection like activity' involving data and development of simple tools for analyses, Bioinformatics has evolved as an independent discipline. It has added a third dimension of '*in silico*' to the existing '*in vivo*' and '*in vitro*' approaches to study life and its processes. Bioinformatics contributes the ability to compile, curate and process vast amount of biological data to accelerate knowledge discovery in life sciences. Thus, applicability and importance of Bioinformatics in life science research has received an unequivocal recognition world over. Bioinformatics has brought in a paradigm shift in the way in which modern biology is practiced and taught today. It has also opened up new horizons for research in life sciences. Consequently, Bioinformatics has been included in the syllabi of the masters' degree programs in various branches of life sciences offered by most of the universities in India and abroad. Hence, the need for formally trained teachers in Bioinformatics is ever increasing.

Biological data is inherently diverse by nature. With the advent of modern methodologies, biology has become a data rich science. It encompasses micro as well as macro level data ranging from genes to genomes, proteins to proteomes, genotypes to phenotypes and spans from individuals to populations and/or ecosystems. As a result, database searches and data mining have become integral parts of research in modern biology. Knowledge of Bioinformatics approaches is also expected to facilitate and enrich teaching of many branches of biology such as botany, zoology, microbiology, biotechnology in general and molecular biology, genetics, cell biology, biochemistry, immunology, taxonomy and phylogeny in particular. The Bioinformatics Centre at University of Pune is one of the pioneers in imparting Bioinformatics education in India<sup>1</sup>. The Centre is now launching modular training programs for professionals under the Centre of Excellence grant by the Ministry of Information & Communications Technology (MCIT), Govt. of India. Under this initiative, the Bioinformatics Centre is happy to announce training program for life science teachers.

<sup>1</sup>. Kulkarni-Kale U, Sawant S, Chavan V. Bioinformatics education in India. (2010) Briefings in Bioinformatics. 11(6):616-25.

### About the Centre

Bioinformatics Centre at University of Pune was established in 1987 as a Distributed Information Centre under the BTIS network of Department of Biotechnology (DBT), Govt. of India. The Centre has evolved into Center of Excellence (CoE) as recognized by two national funding agencies, viz., DBT (2002 onwards) and MCIT (2007 onwards). The Centre engages itself in Bioinformatics training & research. Academic programs leading to M. Sc. and Ph.D. degrees in Bioinformatics are offered currently. The series of modular courses under CoE grant of MCIT will include theme-based courses viz. problem solving approach in Bioinformatics, Comparative Genomics, Vaccine design etc., as well as courses designed for professionals/researchers in the areas viz., Chemistry, Pharmacy, Information Technology etc. Several databases and prediction servers in the areas of Bioinformatics, comparative genomics, immunoinformatics and metabolic pathway engineering have been developed at the Centre. Novel algorithms developed in-house for analyses of sequence, structure and genomic data are the highlights of R&D programs at the Centre (<http://bioinfo.net.in>).

### Course objectives

- Provide training and support to teachers who can play a role in Bioinformatics education.
- Facilitate teachers to incorporate Bioinformatics approaches in to their teaching activities in respective disciplines.
- Encourage teachers to apply Bioinformatics methods in their research.

### Course contents\*

- Overview of Bioinformatics
- Introduction to biological databases
- Concepts in mining biological data
- Applications of Bioinformatics approaches for problem solving in life sciences

\*This course will deal with sequence data and sequence-based Bioinformatics approaches. It will be followed by a sequel wherein structure-based Bioinformatics approaches will be covered. Participants are encouraged to attend both the courses.

### Registration Form Modular Training Course in Bioinformatics for Life Science Teachers

Name \_\_\_\_\_  
(In capital)      Surname      Name

\_\_\_\_\_  
Father/Husband's Name

Designation \_\_\_\_\_ Gender (M/F) \_\_\_\_\_

Organization \_\_\_\_\_

Address \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Educational Qualifications \_\_\_\_\_

Teaching experience \_\_\_\_\_ years

Phone (O) \_\_\_\_\_

Phone (M) \_\_\_\_\_

Fax \_\_\_\_\_

Email1 \_\_\_\_\_

Email2 \_\_\_\_\_

### Demand Draft details

Amount in Rs. \_\_\_\_\_

Bank name \_\_\_\_\_

DD No and Date \_\_\_\_\_

DD should be drawn in favour of 'Registrar, University of Pune' payable at Pune.

Online registration facility is also available on workshop website. You may fill up this form or register online and print the online form. Send your registration form to Coordinators, MTCB, Bioinformatics Centre, University of Pune, Pune - 411007

Signature of the candidate:

Signature of the sponsoring authority: