

# University and PG College M.Sc. Teachers' Training Program in Biology / Life Science

7<sup>th</sup> June to 27<sup>th</sup> June 2018 (21 days)



Center of Excellence in Science and  
Mathematics Education

Indian Institute of Science

at its

Challakere Campus, Chitradurga-577536

Under

Pandit Madan Mohan Malaviya National  
Mission on Teachers and Training  
(PMMMNTT), MHRD, Govt. of India.



IISc at Challakere Campus offers a great opportunity for the University / PG college teachers teaching M.Sc. classes in Biology / Life science.

This is a three weeks (21 days) residential training program equivalent to UGC refresher courses approved by the MHRD, Govt. of India. The unique features of this training program are learning Biology by doing experiments. This will allow the teachers to understand the concepts and the theories behind the phenomena, and apply their understanding to do new innovative experiments.

Contact hours of the program will be more than 180 hrs.

- 80 hrs. Lectures (8.00 am - 12.00 pm).
- 100 hrs. Experiments (~1.00 pm- 6.30 pm).
- 3-5 Experiments per day.
- Lectures will be delivered by Faculty members from IISc.

The training program will cover the three major branches of biology- **Microbiology, Molecular Biology and Genetics.**

Well defined experiments covering various aspects are developed to be performed individually by teachers themselves.

### 1. Microbiology:

Experiments dealing with isolation of microorganisms, microscopy, micrometry, identification of bacteria and fungi; bacterial growth curve, dental caries susceptibility test, antibiotic sensitivity tests, evaluation of antibiotics, milk testing methods, food analysis, serodiagnosis of microbial infection, seed health testing, evaluation of seedling vigour.

### 2. Molecular biology:

Isolation of DNA/RNA from different sources, Cloning, Plasmid DNA isolation, DNA restriction digestion, ligation, transformation, recombinant

selection, Expression, Purification and characterization.

### 3. Genetics:

*Drosophila* genetics, morphology, mutants, Balance chromosome, mutagenesis, ecology and behavioral experiments and other techniques will be carried out.

Applications are invited from Indian citizens who are involved in teaching M.Sc. students in any biological discipline. Those who have undergone UGC courses can also apply. **Contract and guest lecturers can also apply.**

No holiday / break in 21 days. Only one Sunday afternoon will be left free.

**Send your application in the prescribed format available in the TDC website [tdc.iisc.ac.in](http://tdc.iisc.ac.in)**

**Last date to receive application:  
May 20, 2018**

**Send your application to**

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