

## Training course on Basic Plant Tissue Culture

**CODE: IICB-BPTC**

Plant tissue culture has a wide application in academia as well as industry. The basic course of plant tissue culture at CSIR-IICB will be a combination of theory and hands-on training for learning plant tissue culture basic principles, techniques and methods. Training will be provided for media preparation, sterilization methods and maintenance of aseptic condition, explant preparation, callus induction and regeneration. This basic course is intended for beginners, to teach and train them in plant tissue culture techniques.

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|-----------------------------------|-------------------------------------------------------------------------------|
| <b>Educational Qualifications</b> | : B.Sc with Life Science as one of the subject<br>(Pursuing/Completed Degree) |
| <b>Venue Of the course</b>        | : CSIR-IICB (Jadavpur Campus)                                                 |
| <b>Duration</b>                   | : 2 weeks(07 <sup>th</sup> Sept 2026-18 <sup>th</sup> Sept 2026)              |
| <b>Course Fees</b>                | : Rs 5000/- (Inclusive of GST)                                                |

### Training Course Content-

- Overview of plant tissue culture and its application
- Overview of Culture Types and Micropropagation
- Overview of the laboratory equipment required in plant tissue culture and training on how to use them
  - Overview of various types of plant tissue culture media and preparation, sterilization, and storage of media
  - Preparation of explant
  - Transfer of explant into culture media
  - Induction of callus and maintenance of callus culture
  - Preparation of regeneration media and overview of plant regeneration procedure
  - Good plant tissue culture practice, including safety procedures, control of facilities, equipment, reagents, and phytohormones
  - Introduction to Agrobacterium-mediated genetic transformation of plants (demonstration only)



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### Training Methodology-

- ☐ Theory on-Plant Totipotency ,Callus Induction/clonal propagation Cell Suspension
- ☐ Various media for micropropagation of economically important plants
- ☐ Hands-on practical on- Good PTC practice, Media preparation, Micropropagation, Callus and Cell culture technique
- ☐ Introduction to Agrobacterium mediated genetic transformation of plants

### Salient Features of the course:

- ☐ Hand-out information on teaching modules
- ☐ Theory and practical sessions are per the course curriculum
- ☐ Hands on training through several practical classes in laboratories  
Professional skill development, case study, evaluation and certification
- ☐ Exposure to all relevant instruments
- ☐ Assessment through theoretical assignments & practical examinations for evaluation
- ☐ Group discussions/interactive sessions
- ☐ **Seats Available : 10 (Shortlisting will be based on first come-first serve policy and eligibility criteria of the course)**
- ☐ Due to limited availability of seats, early registration through online application is recommended .
- ☐ **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
- **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.**