

**Industrial Biotechnology Training**  
**Plant Biotechnology (Specialized)**  
**Session 2021 - 2022**

<b>Module Content</b>
Introductory Lecture on GLP
Demonstration and Handling of Instruments
Introduction to Plant Biotechnology & Plant Tissue Culture *Formation of groups & allotment of their work
Sterilization techniques specific to plant culture
Preparation of culture media for plants
Preparation of Hormone Stocks Solutions, preparation of PTC hood
Explant Preparation and Surface Sterilization
Callus Culture, meristem culture, Micropropagation by Shoot Tip (Explant)
Preparation of cotton bed & filter paper bridge for in vitro plant culture
Stress treatment to seeds & viability checking by TTC method
Seed sterilization, inoculation & stress induction (Drought & Salt stress)
Morphology study of seedlings grown <i>in vitro</i>
Enzyme isolation from plant sample & Antioxidant Assay (GPOX) (Control & Stressed plant)
Preparation of reagents & protein isolation from plant sample (Control & Stressed plant)
Determination of protein by Bradford method
Preparation of report & presentation