

Course Objectives

Training is aimed at providing indepth knowledge and hands-on training experience on wide range of instruments/ techniques used in a biotechnology research laboratories /industries for the microbial bioprocess development.

Contents**Theory:**

- Introduction to industrial biotechnology
- Fundamental and principles of bioreactors

Practical:

- Understanding of bioreactor
- CIP and SIP of bioreactor
- Preparation of reactor for operation (probe calibration)

Practical (continued):

- Optimization of bioreactor parameter for scale up
- Inline / online / offline analysis of parameters during process
- Feeding strategy (Fed batch/ continuous operation)
- Cell harvesting
- Continuous centrifugation
- Extraction of intracellular product through high pressure homogenizer