

Module 1:

Hands-on Industrial Training with State of Art Lectures on Advanced Biotech Techniques i.e. Mixed Module
(Program Code: CRT- 01).

THIS IS OUR MOST EFFECTIVE MODULE

Mixed Module* (Includes the techniques from Microbiology/Molecular Biology/ Biochemical
-Proteomics/Enzymology & RDT)

Duration	Advanced/30 Days	15 Days
Seats	20	15
Fee Structure	Rs. 7,800/-	Rs. 4,800/-

Techniques Details (For Duration of 30 Days)

S.No Lab Schedule

- 1 Bio-Instrumentation for Wet Lab.
- 2 Media Preparation & Culturing of Microbes.
- 3 Pure Culture of Microbes through Streaking Method.
- 4 Primary & Secondary Screening of Microbes.
- 5 Growth Kinetic Studies of Microbes.
- 6 Antibiotics Sensitivity Test.
- 7 Minimum Inhibitory Concentration (MIC) Test.
- 8 Genomic DNA Isolation. (A) DNA Isolation from Microbes. (B) DNA Isolation from Plant Sample.
- 9 Agarose Gel Electrophoresis for Genomic DNA.
- 10 RNA Isolation from Plant Samples
- 11 Denaturing Gel Electrophoresis of RNA.
- 12 Qualitative Analysis of Nucleic Acid.
- 13 Qualitative Analysis of Nucleic Acid.
- 14 Protein Isolation & Buffer Preparation.
- 15 SDS-PAGE.
- 16 Blotting Techniques. (A) Southern/Northern Blotting. (B) Western Blotting.
- 17 Restriction Digestion.
- 18 Ligation.
- 19 Competent Cell Preparation.
- 20 Transformation.
- 21 Blue-White Screening.
- 22 Cloning & Gene expression.
- 23 Polymerase Chain Reaction (PCR).
- 24 Electrophoresis of PCR Products.
- 25 Estimation of Protein by Bradford Method.

- 26 Estimation of Protein by Lowry's Method.
- 27 Enzyme Assays.
- 28 Fermentation & Downstream Processing (DSP).
- 29 Chromatography Techniques.

Techniques Details:(For Duration of 15 Days)

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- 1 Bio-Instrumentation for Wet Lab.
- 2 Media Preparation & Culturing of Microbes.
- 3 Pure Culture of Microbes through Streaking Method.
- 4 Primary & Secondary Screening of Microbes.
- 5 Antibiotics Sensitivity Test.
- 6 Minimum Inhibitory Concentration (MIC) Test.
- 7 Genomic DNA Isolation. (A) DNA Isolation from Microbes. (B) DNA Isolation from Plant Sample.
- 8 Agarose Gel Electrophoresis for Genomic DNA.
- 9 Qualitative Analysis of Nucleic Acid.
- 10 Quantitative Analysis of Nucleic Acid.
- 11 Protein Isolation & Buffer Preparation.
- 12 SDS-PAGE.
- 13 Southern/Northern Blotting.
- 14 Restriction Digestion.
- 15 Estimation of Protein by Bradford/Lowry's Method.
- 16 Enzyme Assay.
- 17 Polymerase Chain Reaction (PCR).
- 18 Electrophoresis of PCR Products.