PROFICIENCY IN MICROBIAL BIOTECHNOLOGY

(Course Duration: 30-45 DAYS)

Coursework

Isolation of microorganisms from natural sources.
Sterilization techniques.
Pure culture preparation.
Identification of microorganisms
(i)Colony morphology
(ii)Staining techniques – Gram's staining, Endospore staining, etc.
Biochemical confirmation.
Isolation of antibiotic producing microorganisms. (Bacteria/Fungi)
Morphological characterization of fungi.
Industrial production of Antibiotics by batch culture system.
Determination of antimicrobial spectrum.
Determination of MIC of antibiotics.
Isolation of Plasmid DNA from prokaryotes
Isolation of Genomic DNA from Prokaryotes
Quantitative estimation of DNA
AGE (Gel Electrophoresis and applicability in Industries)
U.V. Transillumination and the applicability in Biotech industries
Transformation of bacteria for expression of recombinant proteins.
Research project.