



MANGALORE UNIVERSITY

DEPARTMENT OF BIOSCIENCES

M.Sc. ENVIRONMENTAL SCIENCE

ESP408 ENVIRONMENTAL MICROBIOLOGYLAB

Course Outcomes:

CO1 Isolate and identify microorganisms in air/soil/water samples.

CO2 Learn staining procedures for microorganisms.

CO3 Understand the techniques and instrumentations in environmental microbiology.

CO4 Learn the techniques for coliform analysis.

1. Methods of collection and preservation of microorganisms
 2. Serial dilution of soil and water
 3. Preparation of different types of microbial culture media
 4. Gram staining techniques
 5. Study of microorganisms in air
 6. Isolation, enumeration and identification of microorganisms in soil samples
 7. MPN techniques for coliform analysis
 8. Effect of heavy metals on microbial growth
 9. Effect of pesticide on soil microorganisms
 10. Microbiological assays.
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