



MANGALORE UNIVERSITY
DEPARTMENT OF BIOSCIENCES
M.Sc. ENVIRONMENTAL SCIENCE

ESP458 ADVANCED INSTRUMENTATION LAB.

Course Outcomes:

CO1 Learn the principles of various instruments used in environmental science and to conduct experiments using such instruments.

CO2 Develop the technical skill of handling and operation of various advanced instruments.

CO3 Learn different titration methods.

CO4 Understand air sample analysis.

1. Spectrophotometric determination of trace elements.
2. Conductometric titration of water & Soil extract samples.
3. Extraction of plant pigments and study of TLC and column chromatography
4. Determination of Fluorides by spectrophotometry.
5. Determination of Organic carbon in soil by titrimetric and spectrophotometric methods
6. Potentiometric titration of Non-aqueous solvents.
7. Determination of Nitrite/Nitrate/Total nitrogen/Ammonia nitrogen in water and soil samples.
8. Determination of sodium and potassium by flame photometry
9. Determination of pesticides by Gas chromatographic method.
10. Determination of phosphate by Molybdate method
11. Determination of SO₂ in air sample by para-rosaniline method