

**SECOND ALLIED COURSE III
COMPUTATIONAL AND ANALYTICAL METHODS IN AQUACULTURE - II**

UNIT 1:

Minor equipments – water and sediment samplers – Secchi disc, lux meter, turbidity meter, pH meter, oxygen analyzer, refractometer, salinometer, echosounder.

UNIT 2:

Microscopy – light microscope, phase contract, photomicrography, electron microscope.

UNIT 3:

Spectroscopy – absorption and emission principles, colorimeters, spectrophotometers (UV visible, fluorescence, atomic absorption spectrophotometer), inductively coupled plasma spectrometer (ICP).

UNIT 4:

Chromatography-paper, thin layer, gas chromatography, high performance liquid chromatograpohy, electrophoresis.

UNIT 5:

Microtechnique – sliding and rotary microtomes, freezing microtome, specimen fixation, dehydration, embedding and sectioning, staining of sections, whole mount preparation.

Text books:

1. Galan W.Ewing, 1988. Instrumental methods of Chemical analysis. McGraw-Hall Book Company.
2. Richard W.Von Norman, 1983. Experimental biology, Prentice –Hall, New york.
3. Skoog, D.A. and J.J.Leary 1992. Principles of instrument analysis. Fourth Edition, Saunders College Publishers, Philadelphia.