



Code	Subject Title	Cr. Hrs	Semester
ZOOL-407	Biological Techniques	2	VIII
Year	Discipline		
4	Zoology		

Course Contents

Size measurement: Animals, Tissues, Cell nuclei, other organelles, surface area and volume; Scale vernier caliper, stage micrometer ocular micrometer, Microscopy: Staining: Purpose, procedure, examples, Gram's staining, Animal / Plant tissue, Haematoxylin and Eosin, Methylene Blue; Microtomy: Sections, C.S. (T.S.), L.S., S.S., Fixation, Embedding, Sectioning, Slide mounting; Photometer: Visible spectrum, U.V. spectrum; How the principle work? Operational instructions; Centrifugation: Ultra centrifuge, Cell fractionation, Separation techniques; Filtration: Chromatography: Paper, Thin layer, Column, Gas Chromatography, HPLC; Oven: Distillery: Distillation; Incubator: Gel electrophoresis: DNA separation, protein separation; Collection and preservation of animals and plants: Precautions at the time of collection; Preservation; Principles; Some procedures of preservations; Data collection and its analysis: Statistical tests; Write up: How you should present (Write and compile) your project or research work; How a research paper is written.

Recommended Books

- Gallagher, S.R. and Wiley E.A. 2008. Current protocols essential laboratory Techniques. John Wiley & Sons Inc, USA.
- Jones, A. Reed, R and Weyers, J. 1994. Practical skills in Biology. Longman Singapore Publishers (Pte) Ltd.