

**VOCATIONALS KILLENHANCEMENT COURSE
(VSEC) offered by Department of Zoology
B.Sc. Semester II (SEC – I)
Syllabus under Autonomy**

Name of the course : Tools and Techniques in Zoology II

[4 hrs / week 15 weeks*4 practical =60P]

[Credits 2]

Course description:

Course is designed to train students about tools and techniques used in Zoology. Specifically about study of chordates, solution preparation, use of colorimeter, UV spectrometer and *Drosophila* culture, study of genetic traits.

Course Objectives:

To learn about tools and techniques used to study chordates, instrumentation and genetics.

Course learning outcomes:

CO1: To comprehend the key skills needed to study vertebrates .

CO2: To be able to expert in instrument operation and solution preparations.

CO3: To be able to study genetics using *Drosophila* culture.

Practical:

[60P]

1. Collection, documentation and photography of chordates.
2. Preparation and standardization of solutions : Normality, Molarity, pH.
3. Introduction to pipetting and micropipetting.
4. Finding λ max of solution using colorimeter.
5. DNA estimation using UV spectrophotometer.
6. Sterilization of instruments and media using autoclave.
7. *Drosophila* culture preparation.
8. *Drosophila* culture maintenance.
9. Study of genetic traits in *Drosophila*.

REFERENCEBOOKS:

1. S. Chand: A Manual of Practical Zoology : vertebrates : P.S.Verma
2. Alpha Science International Limited : Introductory Practical Biochemistry :
S.K. Sawhney

Mode of Evaluation :

Continuous internal evaluation (no end semester examination) / Poster presentation / Project / Presentation / Assignment / Quiz

Total Marks :- 100