Course Code	Course Name	Credits
26ZY155	EMBRYOLOGY AND EVOLUTION LAB	02

Objective

To provide practical knowledge on embryonic development, developmental stages, evolutionary principles and evidences of evolution in animals.

Practicals

1. Study of structure of sperm and ovum using charts/models.
2. Observation of cleavage stages in frog/chick embryos.
3. Study of blastula and gastrula stages through permanent slides.
4. Identification of embryonic membranes in chick embryo.
5. Study of developmental stages of frog using charts and specimens.
6. Temporary mounting of chick embryo at different incubation stages.
7. Observation of organogenesis in vertebrate embryos.
8. Study of placental types in mammals through charts/models.
9. Identification of larval forms and metamorphosis in amphibians.
10. Comparative study of embryonic development in vertebrates.
11. Study of homologous and analogous organs.
12. Observation of vestigial organs and connecting links.
13. Study of adaptive radiation using suitable examples.
14. Identification of fossils and evolutionary series through charts/models.
15. Study of evidences of evolution from comparative anatomy and embryology.
16. Observation of Darwin's finches and adaptive modifications.
17. Study of industrial melanism and mimicry in insects.
18. Construction and interpretation of phylogenetic trees.
19. Study of human evolution through charts and fossil records.
20. Field visit to museum/natural history collection for evolutionary studies.

Students are required to perform and record at least eight experiments in the laboratory manual as part of the course requirements.