

Course Code	Course Name	Credits
26ZY002	CHORDATE ZOOLOGY	04

Course Objectives

- To introduce the general characteristics and classification of chordates.
- To understand the structure and organization of different vertebrate groups.
- To study the morphology and adaptations of selected chordate animals.
- To explain important biological concepts such as migration, parental care, and flight adaptation.
- To develop knowledge about the ecological and economic importance of vertebrates.

Learning Outcomes

- Identify and classify major groups of chordates based on their characteristics.
- Explain the structure and functions of representative vertebrate animals.
- Understand the adaptations and evolutionary features of fishes, amphibians, reptiles, birds, and mammals.
- Differentiate poisonous and non-poisonous snakes and understand snake venom mechanisms.
- Appreciate the diversity and significance of vertebrate animals in nature and human life.

Unit 1 – Introduction to Animal Kingdom (12 Hrs.)

General characters and classification of phylum Chordata upto classes with examples. Prochordata: General characters of Hemichordata, Cephalochordata and Urochordata with examples. Type study: Amphioxus

Unit 2 - Agnatha (12 Hrs.)

General characters -Type study: Petromyzon. Pisces: General characters and classification upto order with examples. Type study: Scoliodon. Accessory respiratory organs, Parental care and Migration in fishes.

Unit 3 - Amphibia & Reptilia (12 Hrs.)

Amphibia: General characters and classification upto order with examples. Type study: Frog; Parental care in Amphibia. Reptilia: General characters and classification upto order with examples. Type study: Calotes. Identification of poisonous and non-poisonous snakes. Poison apparatus and biting mechanism of poisonous snakes.

Unit 4 - Aves (12 Hrs.)

General characters and classification upto order with examples. Type study: Pigeon-Flight adaptations and Migration in birds.

Unit 5 - Mammalia (12 Hrs.)

General characters and classification upto order with examples. Type study: Rabbit; Dentition in mammals - Dog, Rabbit and Man, Aquatic mammals.

Reference Books:

1. Jordan, E.L and P.S. Verma. 1995. Chordate Zoology and Elements of Animal Physiology 10th edn. S. Chand and Co. Ltd, New Delhi.
2. Young, J.Z. 2004. The life of vertebrates. III Edition. Oxford university press.
3. Ayyar, E.K and T.N. Ananthakrishnan. 1992. Manual of Zoology, Vol II. (Chordata). Viswanathan Printers and Publishers. Ltd., Madras.
4. Kotpal R.L. 1992. Vertebrata, Rastogi Publications, Meerut
5. S. Thangamani, A., S. Prasanna Kumar, N. Arumugam and L.M. Narayanan. 2013. A textbook of Chordates. Saras publication, Nagercoil.

Websites and eLearning Sources:

https://en.wikibooks.org/wiki/Vertebrate_Zoology

<https://www.biologydiscussion.com/vertebrate-zoology>

<https://www.easybiologyclass.com/category/zoology/vertebrate-zoology/>