

Course Code	Course Name	Credits
26ZY606	COMMERCIAL ZOOLOGY	04

### Course Objectives

- To understand the commercial applications of zoological sciences.
- To study various animal-based industries and production technologies.
- To gain knowledge about entrepreneurship opportunities in zoological enterprises.
- To understand sustainable utilization and management of animal resources.
- To develop practical and managerial skills related to commercial zoology.

### Learning Outcomes

- Explain the economic and commercial importance of animal resources.
- Demonstrate knowledge of techniques used in animal-based industries.
- Analyze production, processing, and marketing methods of zoological products.
- Apply principles of sustainable management in commercial zoological practices.
- Evaluate entrepreneurship opportunities and recent advances in commercial zoology.

### Unit 1 – Introduction to Commercial Zoology (12 Hrs.)

Definition, scope, and importance of commercial zoology; animal resources and their utilization; commercial value of animal products; sustainable management of zoological resources; role of commercial zoology in rural development and employment generation.

### Unit 2 – Apiculture, Sericulture, and Lac Culture (12 Hrs.)

Honey bee species and beekeeping techniques; honey and other bee products; silkworm rearing and silk production; mulberry cultivation; lac insect cultivation and lac production; commercial importance of apiculture, sericulture, and lac culture.

### Unit 3 - Fisheries and Ornamental Fish Culture (12 Hrs.)

Freshwater and marine fisheries; aquaculture and pisciculture practices; ornamental fish keeping and aquarium management; breeding and feeding of ornamental fishes; fish preservation and processing; marketing and export of fish products.

### Unit 4 – Poultry, Dairy, and Vermitechnology (12 Hrs.)

Poultry farming and management; breeds and production of eggs and meat; dairy farming and livestock management; milk processing and dairy products; vermiculture and vermicomposting; commercial production and applications of vermiproductions.

### Unit 5 - Animal By-products and Entrepreneurship (12 Hrs.)

Animal by-products and their commercial uses; leather, wool, pearls, and shell products; processing and value addition of animal products; packaging and marketing strategies; government schemes and financial assistance; entrepreneurship development and recent advances in commercial zoology.

### Reference Books:

1. Shukla, G.S. and Upadhyay, V.B. (2002). Economic Zoology. Rastogi Publications.
2. Srivastava, C.B.L. (2007). Applied and Economic Zoology. Pragati Prakashan.
3. Nigam, H.C. (1997). Zoology of Chordates and Economic Zoology. Vishal Publications.
4. Mishra, R.C. (2008). Perspectives in Indian Apiculture. Agro Botanica.
5. Ganga, G. and Chetty, J.S. (2012). An Introduction to Sericulture. Oxford and IBH Publishing Co.

### Websites and eLearning Sources:

<https://www.biologydiscussion.com/economic-zoology>  
<https://vikaspedia.in/agriculture/farm-based-enterprises>  
<https://www.easybiologyclass.com/category/economic-zoology/>