

Course Code	Course Name	Credits
26ZY605	ECONOMIC ZOOLOGY	04

Course Objectives

- To identify the phyla of invertebrate animals and recognize their distinguishing features.
- To understand the taxonomy, relationship and evolution of animals.
- To understand the role of invertebrates in biological communities, ecological interactions, and conservation problems.
- To appraise the diversity of animals in a phylogenetic context.

Learning Outcomes

- Explain the economic significance of various animal groups and their products.
- Demonstrate knowledge of applied aspects of zoology in agriculture and industry.
- Analyze the impact of harmful animals and methods for their control.
- Apply principles of animal management and utilization in sustainable practices.
- Evaluate the role of zoological resources in rural development and entrepreneurship.

Unit 1 – Introduction to Economic Zoology (12 Hrs.)

Definition, scope, and importance of economic zoology; relationship between animals and human welfare; beneficial and harmful animals; zoological resources and their utilization; conservation of economically important animals.

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

Honey bees and bee products; species of honey bees; methods of beekeeping; silk production and silkworm rearing; types of silk and economic importance of sericulture; lac insect and lac production; cultivation and uses of lac.

Unit 3 - Fisheries and Aquaculture (12 Hrs.)

Capture and culture fisheries; freshwater and marine fisheries; pisciculture and aquaculture practices; ornamental fish culture; fish preservation and processing; economic importance of fisheries.

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

Principles of poultry farming; breeds and management of poultry birds; dairy farming and livestock management; importance of milk and dairy products; vermiculture and vermicomposting; role of vermitechnology in organic farming and waste management.

Unit 5 - Harmful Animals and Their Control (12 Hrs.)

Pests of agriculture and stored grains; household pests and vectors of diseases; economic losses caused by harmful animals; biological and chemical control measures; integrated pest management; sustainable approaches in pest control.

Reference Books:

1. Shukla, G.S. and Upadhyay, V.B. (2002). Economic Zoology. Rastogi Publications.
2. Kotpal, R.L. (2012). Modern Textbook of Zoology: Invertebrates and Economic Zoology. Rastogi Publications.
3. Nigam, H.C. (1997). Zoology of Chordates and Economic Zoology. Vishal Publications.
4. Ayyar, E.K. and Ananthakrishnan, T.N. (1992). Manual of Zoology: Economic Zoology. S. Viswanathan Publishers.
5. Srivastava, C.B.L. (2007). Applied and Economic Zoology. Pragati Prakashan.

Websites and eLearning Sources:

<https://www.biologydiscussion.com/economic-zoology>
<https://www.easybiologyclass.com/category/economic-zoology/>
<https://vikaspedia.in/education/childrens-corner/zoology/economic-zoology>