

Course Code	Course Name	Credits
26ZY951	APICULTURE	04

Course Objectives

- To understand the principles and scope of apiculture.
- To study the biology and behaviour of honey bees.
- To develop knowledge on bee keeping methods.
- To understand honey production and bee products.
- To enhance entrepreneurial skills in apiculture.

Learning Outcomes

- Explain the importance of apiculture.
- Identify different species of honey bees.
- Demonstrate bee keeping techniques.
- Analyze honey production and processing.
- Apply apiculture methods commercially.

Unit 1 - Introduction to Apiculture (12 Hrs.)

History, scope and importance of apiculture; species of honey bees; social organization.

Unit 2 - Bee Biology and Behaviour (12 Hrs.)

Morphology, anatomy and behaviour; communication in honey bees; life cycle.

Unit 3 - Bee Keeping Methods (12 Hrs.)

Bee hives and equipment; colony management; seasonal management.

Unit 4 - Honey and Bee Products (12 Hrs.)

Honey extraction and processing; beeswax, royal jelly and propolis.

Unit 5 - Commercial Apiculture (12 Hrs.)

Marketing and economics; diseases and pests of bees; entrepreneurship opportunities.

Reference Books:

1. Prost, P.J. (2017). Apiculture. Oxford and IBLL.
2. Singh, S. (2018). Bee Keeping in India. Indian Council of Agricultural Research.
3. Mishra, R.C. (2019). Honey Bee Biology. APH Publishing.
4. Free, J.B. (2016). Biology of Honey Bees. Academic Press.
5. Atwal, A.S. (2017). Agricultural Entomology. Kalyani Publishers.

Websites and eLearning Sources:

1. <https://www.icar.org.in/>
2. <https://www.fao.org/>
3. <https://www.agrimoon.com/>

