



CLUSTER UNIVERSITY SRINAGAR

SYLLABUS (FYUP UNDER NEP 2020)

Offered By Department Of ZOOLOGY

Semester 1st Skill Enhancement Course (SEC)

Course Title: Apiculture-I

Course Code: UGZOO22S101

Credits: 4 (Theory: 1, Practical: 3)

Contact Hrs: 105 (Theory: 15, Practical: 90)

Max. Marks 100

Theory External: 15; Min Marks: 06

Theory Internal (Continuous Assessment): 10 Marks, Min Marks: 04

Practical Experimental Basis= 45 Marks, Min. Marks: 18

Practical Internal (Continuous Assessment): 30 Marks, Min. Marks: 12

Learning objectives: This course is designed to acquaint the student with:

1. The broad field of beekeeping.
2. Honeybee biology
3. Division of labour in bees

Learning outcomes: After successful completion of the course the students will be able to:

1. Explain the basic concepts of apiculture like systematics, colony Organization, polymorphism.
2. Explain the importance of institutions pertinent to apiculture.
3. Discuss the setup of beekeeping business.

THEORY:

Unit-1:

Beekeeping

- 1.1 Introduction and history of Beekeeping.
- 1.2 Classification, Morphology of honey bee.
- 1.3 Lifecycle of honey bee.
- 1.4 Social organization, communication, foraging and swarming in honeybees.

PRACTICAL (Lab Course)

Unit-2:

Temporary mount of:

- a) Mouthparts
- b) Sting apparatus
- c) Pollen basket

Caste identification.

Unit -3:

Traditional methods of bee keeping.

Modern methods of bee keeping.

Distinguish between different developmental stages of honey bees.

Unit-4:

Collection, identification and preservation of bee flora.

Dividing bee colonies, supering.

Visit to a local Apiary.

Suggested Reading:

1. *Beekeeping in India* Singh S., ICAR, New Delhi.
2. *Apiculture in India*-Ataur Rahman.
3. *Perspective in Indian Apiculture*-Mishra RC.
4. *Textbook of Apiculture (Beekeeping)*-Dr D K Belsare, Dr Rakesh Kumar Singh, Dr Mrs Shashikala D Belsare and Ravi H. Deshmuk.
5. *The Complete Book on Beekeeping and Honey Processing (2nd Revised Edition)*- NPCS Board of Consultants & Engineers.
6. *Apiculture*- Dr J K Gupta.