S.S.D. Girls' College, Bathinda

Multidisciplinary Course Based On NEP-2020

B.Sc. / B.Sc. (Honours)

Session:2026-27, 2027-28, 2028-29

SYLLABUS

B.Sc. (Med.) Part-I (SEMESTER-II)

SUBJECT: SEC – APICULTURE

PAPER CODE: BM208

Max Marks:100
Pass Percentage: 35%
Theory Paper: 50
Internal Assessment: 30 marks
Viva: 20

Total teaching hours:2 hrs/week
Time allowed:3 hours
Paper Code: BM208
Credit: 03

NOTE: This course will be evaluated through continous evaluation.

SECTION A

1. Biology of Bees: Classification and Biology of Honey Bees, Social Organization of Bee Colony, behavioural patterns (bee dance, swarming).

2. Rearing of Bees: Artificial Bee rearing (Apiary), Beehives – Newton and Langstroth, Bee Pasturage, Selection of Bee Species for Apiculture, Bee Keeping Equipment, Methods of Extraction of Honey (Indigenous and Modern) and processing. Apiary management - Honey flow period and lean period, effects of pollutants on honeybees.

SECTION B

3. Diseases and Enemies: Bee Diseases and Enemies Control and Preventive measures

4. Bee Economy: Products of Apiculture Industry and its Uses (Honey, Bees Wax, Propolis, Royal jelly), Pollen. Modern methods in employing artificial Bees for cross pollination in horticultural gardens- stationary and migratory bee keeping.

5. Entrepreneurship in Apiculture: Bee Keeping Industry – Recent advancements, employment opportunities, economics in small and large-scale beekeeping, scope for women entrepreneurs in beekeeping sector, study of development programs and organizations involved in beekeeping in India.

Suggested Readings:

•Proost, P. J. (1962). *Apiculture*. Oxford and IBH, New Delhi.
•Bisht D.S., *Apiculture*, ICAR Publication.
• Singh S., *Beekeeping in India*, Indian Council of Agricultural Research, New Delhi.
• Mishra, R.C. (1995). *Honeybees and their management in India*.Indian Council of Agricultural Research, New Delhi.
•Rahman, A. (2017). *Beekeeping in India*.Indian Council of Agricultural Research, New Delhi.
• Gupta, J.K. (2016). *Apiculture*, Indian Council of Agricultural Research, New Delhi.

Course Outcomes

By the end of the course, students will be able to:

- Understand the biology, behaviour and social organization of honey bees.
- Develop knowledge of beekeeping practices, bee products and their economic importance.
- Understand bee diseases, pest management and entrepreneurship opportunities in apiculture.