



SYLLABUS FOR BEE-BIOLOGY AND BEEKEEPING

DEPARTMENT OF ZOOLOGY

St. ANTHONY'S COLLEGE, SHILLONG

793001

Add-on Course

Bee Biology and Beekeeping

UNIT 1 (Theory – 4 hrs Practical – 4 hrs) = 6 Credits

- Opening – Introduction, Expectations and Objectives
- Introduction to Beekeeping – Importance, status, and challenges
- Comparison of Traditional and movable frame hive beekeeping
- Bee species and their characteristics

UNIT 2 (Theory – 4 hrs Practical – 4 hrs) = 6 Credits

- Biology & Behavior of Honeybees
- Site selection and lay out of Apiary
- Beekeeping appliances and their uses
- Seasonal management of beekeeping

UNIT 3 (Theory – 4 hrs Practical – 4 hrs) = 6 Credits

- Method of transfer of bee colony from Log Hive to Modern Bee Hive
- Crop pollination & Beekeeping / Video Clips
- Swarming, absconding and their control
- Bee Hive Products and Their collection

UNIT 4 (theory – 4 hrs Practical – 4 hrs) = 6 Credits

- Periodical Apiary Record Keeping
- Honey Bee disease and pest management & handling of bees. Symptoms of diseases and control
- Behavior of bees. Manipulation techniques. Dress and hygiene.
- Honey for nutrition and health. Testing for purity of honey
- Replication of Success Stories

UNIT 5 (Theory – 4 hrs Practical – 4 hrs) = 6 Credits

- Honey production and harvesting
- Dividing a colony: Materials and Methods for Colony Division
- Beeswax processing and uses of beeswax: Collection of beeswax, steps in wax processing, method of beeswax extraction, extraction over boiling water
- Honey processing and its quality control: Reduction of moisture in honey, processing of honey, granulation of honey, Fermentation of honey, quality control and reduction of honey

UNIT 6 (Theory – 4 hrs Practical – 4 hrs) = 6 Credits

- Bee pasture: Introduction and importance, preparation and use of a floral calendar, bee pasture management.
- Identification of Nectar and pollen bearing plants. Flowering time and bee flora products available in Meghalaya
- Sterilization of honey glass bottles. Honey packaging, sealing and labelling
- Economics of Beekeeping: Capital investment and return