

Module name (code): Fish and Honeybee production and diseases (Vetm-M5191)

Course name (code): Apiculture and Honeybee Diseases (Vetm5192)

Credit Hours: 2

Time: _____ Class Room: _____

Instructors:

- Mr. Tewodros A (BSc, MSc, Assistant Professor).....instruct on honeybee production
- Dr. Belay M (DVM, MSc, Associate Professor)... instruct on honeybee disease & enemies

Objectives of the course:

- To know the castes in the organization of the colony and products of hives
- To understand general biology of honeybees
- To work with different types of hives and beekeeping equipment
- To know how to maximize the quantity and quality of bee products
- To manage bee farms successfully and encourage farmers to involve in bee farming
- To know and manage the major honeybee diseases and other honeybee enemies

Course description: Under this course, the following major topics will be discussed. The types of beekeeping, biology of honeybees, colony organization, honeybee products, management of honeybee colonies, diseases and enemies of honeybee colonies.

Practical: familiarizing with beekeeping equipment, beeswax printing, frame wiring and supering

Mode of delivery (Parallel): The course will be offered through lectures, group discussions and presentations, reading assignments and video shows.

Assessment (evaluation) method: Quizzes, tests, assignments, mid and final examinations

COURSE CONTENT:

PART 1: HONEYBEE PRODUCTION

Chapter 1. TYPES OF BEEKEEPING

- Traditional beekeeping
- Transitional /Top Bar Hive /beekeeping
- Improved (Modern) Beekeeping

Chapter 2. BIOLOGY OF HONEYBEES

- Honeybee species and races
- Anatomy and Physiology of the Honeybee
- The Honey Bee Life Cycle

Chapter 3. COLONY ORGANIZATION OF HONEYBEES

- The Queen
- The Drone
- The workers

Chapter 4. SEASONAL COLONY MANAGEMENT

- Build up period
- Honey flow
- Harvesting period
- Dearth period

Chapter 5. HIVE PRODUCTS

- Honey
- Wax
- Pollen
- Royal jelly
- Propolis
- Bee venom

➤ Bee brood...

PART 2: HONEYBEE DISEASES & ENEMIES

REFERENCES:

- **Beekeeping E.F. Phillips, 638.1 PHI, 2006** (available in your library).
- **Beekeeping for Profit and pleasure Addison webb. 2007** (available in your library)
- Beekeeping in the tropics, Francis G. Smith. 638.10913 SMI 1960.
- The beekeeper manual L.A. Stephens.p 638.1 STE 1984.
- Beekeeping in Africa FAO. Agricultural services bulletin 68/6.1990.
- Beekeeping reference manual by Enderiase Zewudu (Dr.) APRIL, 2001.
- Adjare, S. (1984). Golden Insect: A Handbook on beekeeping for beginners. ITDG: London.
- CTA (1988). Beekeeping in the Tropics. Agrodok Series no. 32. Agromisa, Wageningen, The Netherlands.
- Kassaye, A., and Gezahegne T., 1992. Suitability Classification in Apiculture Development, MOA.
- Peace Training Manual (1997). Beekeeping for Beginners. UK.
- Segren, 1977. Tropical Beekeeping: A Handbook on Beekeeping for Beginners. UK.