

## **BTY062 - INTRODUCTION TO FRESHWATER AQUARIUM AND AQUA-SCAPING (45 hrs)**

Maintaining aquarium is one of the most interesting and much sought after hobbies in the world. Keeping an aquarium is an art in itself and it involves aesthetic sense and scientific methods. This course aims primarily at the basic awareness of students regarding different fish species, compatibility, common diseases and treatments. Course also aims at giving viable tips to the takers of this course regarding the requirements of a planted aquarium and different possibilities of aqua-scaping in planted aquariums. Different types of aquarium set-ups would be introduced to students. This course would give each individual an opportunity to practical involvement in the whole process of setting up of aquarium and maintenance and breeding of some fish species.

### **UNIT-1**

**6 Hrs**

Introduction to aquarium-

Aquarium as a natural habitat- Marine and fresh water aquariums- Water purification and quality of water- behaviour pattern of different fish species in relation the water quality.

### **UNIT-2**

**9 Hrs**

Substrates for aquariums-Types advantages and disadvantages, Biochemical Cycles in Aquarium Carbon, Nitrogen other minerals

### **UNIT-3**

**12 Hrs**

Compatibility, breeding, sex determination, Tropical Fish Diseases, stress, space and territorial requirement of different fish species.

### **UNIT-4**

**10 Hrs**

Lighting in Aquarium; -Light as a source of energy, different types of lights, Economical aspects of lighting, Response of fishes to different lights, Advantages and disadvantages of different light systems, Algae, Photosynthesis, Penetration, colour vs. white light, Duration,

### **UNIT-5**

**8 Hrs**

Aqua-scaping and Aquatic plants materials and design

### **Demonstrations-**

1. Making of an aquarium tank
2. Setting up of an aquarium (non-planted)
3. Setting up of a planted aquarium.
4. Breeding of Tropical fish

5. Sex determination of tropical fish
6. In-house CO<sub>2</sub> Production system

### **References**

1. Pillay T.V.R.1995. Aquaculture Principles and Practices. Fishing New Books, Blackwell Science Ltd., Oxford.
2. Shanmugam.K, 1990. Fishery Biology and Aquaculture. Leo Pathippagam, Madras – 600 083.