

**CERTIFICATE COURSE IN**  
**AQUARIUM MANAGEMENT**

**OFFERED BY**

**DEPARTMENT OF AQUACULTURE, MES ASMABI COLLEGE, P. VEMBALLUR**

**(ACADEMIC YEAR 2019-20)**

**COURSE PLAN AND SYLLABI**

**Course Outcome:**

1. Identify common aquarium fishes.
2. Understand the basic biology of common aquarium fishes.
3. Study water quality parameters in aquaria and their maintenance.
4. Understand aquarium setting and aquarium accessories.
5. Construct and design aquaria and aquascaping.
6. Manage aquaria in a professional manner.

**DIVISION OF HOURS/TASKS**

<b>Theory</b>	20	Total study hours = 35
<b>Practical</b>	15 (Inclusive of two workshop sessions)	
<b>Visit to aquarium business firms</b>	2 days	Total Industrial visits = 02

**Course Content**

**THEORY (20 Hrs)**

**Module 1: Introduction**

(4 Hrs)

Introduction to Aquarium and ornamental fishes. Scope and status of aquarium business in Kerala. Accessories- Aerators, filters, lights, heaters, etc. Drift wood and other types of decorative materials. Types of aquaria based on material, species, shape and setting.

**Module 2: Freshwater Ornamental Fishes**

(6 Hrs)

Different varieties of Ornamental fishes - Live bearers, Gold fish and koi, Gourami, Barbs and Tetras, angel fish and cichlids. Fundamental biology of common aquarium fishes of demand. Scientific and common names.

**Module 3: Aquarium plants**

(2 Hrs)

Common aquarium plants. Examples and importance.

**Module 4: Aquarium Setting and Management**

(8 Hrs)

Construction of glass gaquaria. Setting up of freshwater aquarium. Water quality parameters, their relevance and management. Daily, weekly and annual maintenance. Control of algae and snails. Types of feeds and feed management. Common diseases and their management.

**PRACTICAL (15 Hrs)**

1. Identification of common aquarium fishes.
2. Construction of glass aquaria.
3. Setting up of aquarium ( maintained by students can be evaluated after one month )
4. Aquarium plants- identify at least 5 types of aquarium plants.
5. Working of air pump and filters available in the market.
6. Control of snails and algae in ornamental fish culture system - demonstration.
7. Measurement of water quality parameters -
8. Ornamental fish farms- general description.
9. marine aquarium fishes and invertebrates.
10. Setting up of reef aquarium.
11. Disease of aquarium fishes (signs and causative agents and treatments) temperature, pH, hardness, salinity, ammonia and nitrite).
12. Aquarium cleaning- equipment and procedures.

**Sd/- Course Co-ordinator**

**Sd/- Head of the Department**

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