

**A.S. D GOVT.DEGREE COLLEGE FOR WOMEN (A), KAKINADA**

**DEPARTMENT OF ZOOLOGY & AQUACULTURE TECHNOLOGY**  
**2022-2023**

**AQUACULTURE TECHNOLOGY Courses offered**

<b>Semester</b>	<b>Course Title</b>	<b>Course Type (T/P/L)</b>
I	Basic Principles of Aquaculture	T
	Basic Principles of Aquaculture -I Lab	L
II	Biology of Fin Fish & Shell Fish	T
	Biology of Fin Fish & Shell Fish - II Lab	L
III	Fish Nutrition & Feed Technology	T
	Fish Nutrition & Feed Technology - III Lab	L
IV	Freshwater & Brackish water Aquaculture	T
	Freshwater & Brackish water Aquaculture Practical - IV	L
	Fish Health Management & Fisheries Economics	T
	Fish Health Management & Fisheries Economics Practical – V	L
V	Soil and Water Quality Management	T
	Soil and Water Quality Management Lab	L
	Ornamental Fish Culture	T
	Ornamental Fish Culture Lab	L

## **COURSE OUTCOMES (COs)**

### **SEMESTER-I**

#### **BASIC PRINCIPLES OF AQUACULTURE**

**CO1:** Understand and analyze the different aquaculture systems

**CO2:** Understand the pond eco system and nutrient cycles.

**CO3:** Acquire the knowledge on functional classification of ponds.

**CO4:** Understand and analyze lay out and construction of fish pond.

**CO5:** Acquire the knowledge on need of fertilizers and manures for pond and Physico-chemical conditions of pond

### **SEMESTER-II**

#### **BIOLOGY OF FIN FISH & SHELLFISH**

**CO1:** Understand the general characters, classification and commercial importance of cultivable fin and shell fish.

**CO2:** Acquire the knowledge on feeding habits and factors effecting growth in fish

**CO3:** Understand the breeding in fin fish and shell fish.

**CO4:** Acquire the knowledge on parental care in fish and embryonic and larval development of fin fish and shell fish.

**CO5:** Understand the different endocrine hormones

### **SEMESTER-III**

#### **FISH NUTRITION & FEED TECHNOLOGY**

**CO1:** Students can understand the nutritional requirements of cultivable fish.

**CO2:** Create the knowledge in feed preparation and feeding habits.

**CO3:** Students are able to evaluate fish feed manufacture and storage.

**CO4:** Students analyze the estimation of protein content in aquaculture feeds

### **SEMESTER-IV\_ PAPER-IV**

#### **FRESH WATER & BRACKISH WATER AQUACULTURE**

**CO1:** Students can understand the present status of freshwater aquaculture and their role in world economy and food production.

**CO2:** Create knowledge in life history stages of freshwater fish and prawn.

**CO3:** Students gain analytical and technical knowledge of prawn hatchery technology and brackish water species.

**CO4:** They evaluate the carp and prawn culture and composite fish culture systems.

## **SEMESTER-IV PAPER-V**

### **FISH HEALTH MANGEMENT & FISHERIES ECONOMICS**

**CO1:** To understand the diseases of fin fish

**CO2**To understand the diseases of shell fish.

**CO3**To understand the fish health management strategies.

**CO4** To understand the different fisheries economic policies.

**CO5:** To understand the various schemes for the welfare of fishermen community

## **SEMESTER-V**

### **SOIL AND WATER QUALITY MANAGEMENT (Paper – 6A)**

**CO1:** Can understand the essentialities of soil parameters for Aquaculture practices

**CO2:** Can understand and apply the knowledge of water parameters in pond management.

**CO3:** Can apply the technical skills of preparation of pond.

**CO4:** Can acquire the knowledge of recent trends in aquaculture practices.

**CO5:** Can analyse and apply the technical skills of testing of soil and water in pong management

## **SEMESTER-V**

### **ORNAMENTAL FISH CULTURE: (Paper-7A)**

**CO1: Can acquire the** knowledge of basics of ornamental fish culture.

**CO2:** Can identify the different varieties of ornamental fishes used in aquarium.

**CO3:** Can acquire the skills of aquarium management.

**CO4:** Can get the knowledge of breeding of ornamental fishes.

**CO5:** Can get the skills of aquarium fish and plant production commercially.