

SRI VENKATESWARA UNIVERSITY
V SEMESTER W.E.F.2025-26
AQUACULTURE (MINOR)

Course No.:12 - Extension, Economics & Marketing
credits :3

Course outcomes:

1. Gain Knowledge of basic concepts of economics with reference to fisheries and various factors influencing the fishery products price.
2. Know about fisheries marketing, methods of economic analysis of business organizations and preparation of project and project appraisal.
3. To know about application of economic principles to aquaculture operations.
4. Get the broad knowledge of scope and objectives, principles of fisheries extension.
5. Understand the importance of transfer technology of ICAR programmes and training at DAATT Centers and their role in education of aqua farmers through print and electronic media.

SYLLABUS

UNIT – 1 Introduction

- 1-1 Meaning and scope of economics with reference to fisheries
- 1-2 Basic concepts of economics – goods, services, wants and utility, demand and supply, value price, market demand and individual demand, elasticity of demand.
- 1-3 Theory of production, production function in fisheries
- 1-4 Various factors influencing the fishery product's price

UNIT – II Fisheries marketing

- 2-1 Basic marketing functions, consumer behavior and demand, fishery market survey and test marketing a product
- 2-2 Fish marketing – prices and price determination of fishes
- 2-3 Marketing institutions- primary(producer fishermen, fishermen cooperatives, and fisheries corporations) and secondary (merchant/agent/speculative middlemen)
- 2-4 Preparation of project and project appraisal

UNIT-III Fisheries economics

- 3-1 Aquaculture economics- application of economics principles to aquaculture operations
- 3-2 Cost and earnings of aquaculture systems – carp culture, shrimp farming systems, hatcheries, Cost and earnings of fishing units and freezing plants
- 3-3 Socio-economic conditions of fishermen in Andhra Pradesh, Role of Matsyafed and NABARD in uplifting fishermen's conditions, fishermen cooperatives
- 3-4 Contribution of fisheries to the national economy

UNIT-IV Fisheries extension

- 4-1 Fisheries extension – scope and objectives, principles and features of fisheries extension education
- 4.2 Fisheries extension methods and rural development
- 4-3 Adoption and diffusion of innovations

UNIT-V Transfer of technology

- 5-1 ICAR programs – salient features of ORP, NDS, LLP, IRDP, ITDA, KVK, FFDA, FCS, FTI, TRYSEM
- 5-2 Training – meaning, training vs. education and teaching
- 5-3 DAATT centres and their role in tot programs, video conferencing, education of farmers through print and electronic media

V SEMESTER
Course No.: 12 - Extension, Economics & Marketing
credits :1

1. Basic marketing functions
2. Prices and price determination of fishes
3. Fisheries extension
4. Education of Fish farmers
5. Field notes and necessary inputs –should be focused in the practicals

Prescribed Books:

1. Adivi Reddy sv 1997. An introduction to extension education. Oxford & IBH Co.Pvt. Ltd. New Delhi
2. Jayaraman R 1996. Fisheries Economics. Tamilnadu Veterinary and Animal Science University. Tuticorn
3. Subba Rao N 1986. Economics of Fisheries. Daya publishing house, Delhi

References:

1. Dewwett KK and Varma JD 1993. Elementary economic theory. S.chand, New Delhi
2. Korakandy R 1996. Economics of Fisheries Mangement. Daya Publishing House, Delhi
3. Tripathi SD 1992. Aquaculture Economics. Asian Fisheries Society, Mangalore.

V SEMESTER
Course No.: 13 - Ornamental Fishery
credits :3

Course outcomes:

- CO1: Gain Knowledge on Aquarium Fishes
CO2: Have Knowledge on fresh water and marine water Ornamental Fishes CO3: Have Practical knowledge on the setting up of aquarium
CO4: gain knowledge on water quality management for different types of aquariums
CO2: Apply the knowledge for self employment

SYLLABUS

UNIT I: Introduction

- 1-1 Aquarium and ornamental fishes – introduction
- 1-2 Present status of Aquarium trade in the world and India
- 1-3 Aquarium accessories – aerators, filters, lighters and heaters
- 1-4 Water quality needs and different kinds of feeds

UNIT II: Fresh water ornamental fishes

- 2-1 Live bearers, gold fish, koi, gourami, barbs and tetras, angel fish and cichlid fish
- 2-2 Brood stock development, breeding, larval rearing and grow out
- 2-3 Larval feeds and feeding

UNIT III: Marine ornamental fishes

- 3-1 Varieties and habitat of marine ornamental fishes
- 3-2 major marine ornamental fish resources of India
- 3-3 Collection and transportation of live fish, use of anaesthetics
- 3-4 Breeding of marine ornamental fish
- 3-5 Other aquarium animals – sea anemones, lobsters, worms, shrimps, octopus and starfish

UNIT IV: Aquarium management

- 4-1 Setting up fresh water, marine and reef aquariums
- 4-2 Water quality management for different types of aquariums
- 4-3 Common diseases of aquarium fish, diagnosis and treatment
- 4-4 Temperature acclimatization and oxygen packing for aquarium fish

UNIT V: Commercial production of aquarium fish and plants

- 5-1 Commercial production units of ornamental fish- requirements and design
- 5-2 Commercial production of goldfish, live bearers, gouramies, barbs, angels and tetras
- 5-3 Mass production of aquarium plants
- 5-4 Retail marketing and export of ornamental fish

PRACTICALS:

1. Study of aerators – types and structures
2. Water circulation methods in aquarium and filtration
3. Collection and identification of aquarium plants
4. Identification of common marine aquarium fishes
5. Identification of common fresh water aquarium fishes
6. Breeding of egg layers
7. Breeding of live bearers
8. Evaluation of significance of aquaria for commercial and domestic use.

PRESCRIBED BOOK(S):

1. Dick Mills 1998. Aquarium fishes, Dorling Kindersly Ltd, London
2. Van Ramshort JD 1978. The complete aquarium encyclopedia, Elsevier

REFERENCES:

1. Jameson JD and Santhanan R 1996. Manual of ornamental fishes and farming technologies, Fisheries College and research institute, Tuticorn
2. Stephen Spotte 1993. Marine aquarium keeping. John wiley and sons, USA