



Pisciculture (24VACZOOC1)

Objective of the programme:

To Understand types of fishes, aquaculture systems and integrated farming systems, the biology, rearing of different fishes and the entrepreneurship in pisciculture.

VALUE ADDED COURSE
SESSION 2024-25 (Even Semester)
PISCICULTURE (24VACZOOC1)
Course offered by: Department of Zoology
Duration: 01.03.2025 – 14.04.2025



Contact Person (Course Coordinator):
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VALUE ADDED COURSE PISCICULTURE (24VACZOO1) Session 2024-25

REGISTRATION FORM

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Name:.....

Enrolment No.....

Program:.....

Sem. & Year.....

Faculty/College/Department:.....

Contact No./Mobile:.....

E-mail:.....

Course Name & Code:.....

Signature with date:.....

Contact Person (Course Coordinator)

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Course Schedule

01-March to 14-April-2025

Course Content

24VACZOO1	PISCICULTURE (Freshwater Aquaculture Production Systems)	30 Hrs
Course Objective	To gain knowledge and understand the recent advances in fresh water fish and fish farming under different culture systems.	
Course Outcome	After successful completion of this course students will be able to:- 1. Illustrate the types of fishes, aquaculture systems and integrated farming systems. 2. Understand the biology and rearing of different fishes. 3. Understand the entrepreneurship in pisciculture.	
Unit I	Introduction: Present status, hindrances / problems / constraints and prospects for fish farming in global and Indian perspective. Development process, different supports and driving factors for production enhancement.	
Unit II	Aquaculture systems: Extensive, semi-intensive and intensive culture of fish. Partitioned aquaculture systems: raceways, tanks, flow-through systems polyculture, and composite fish culture. Cages and enclosure. Peri-urban aquaculture systems: aquaponics, RAS, flow-through systems, bio-floc technology and land based aquaculture systems.	
Unit III	Aquaculture practices for cultivable species: carps, catfish, snakeheads, feather backs, tilapia, mahseer, trouts. Grow out practices: pre stocking, post stocking management, harvesting and BMP. Other alternative species for high production. Species selection and crop planning. Economics of different fish farming Systems.	
Unit IV	Integrated farming systems: Design, farming practices, constraints and economics of IFS of fish with vegetables, fodder, paddy, cattle, pig, poultry, duck, rabbit and quail. IMTA, Freshwater pearl culture, multi-level integrated system. Resource utilization and conversion of waste to wealth.	
Unit V	Wastewater-fed aquaculture: Water treatment methods, species selection, culture practices, harvesting and depuration process. Merits and demerits of wastewater fed aquaculture systems. Pre-requisites and precautions to be taken in the technology adoption.	
Suggested Readings	<ol style="list-style-type: none"> 1. AAHRI. 1998. Health Management in Shrimp Ponds. Aquatic Animal Health Research Institute (AAHRI), Department of Fisheries, Thailand. 2. Agarwal SC. 2008. A Handbook of Fish Farming. 2nd Ed. Narendra Publ. House. 3. Beveridge MCM & Mc Andrew BJ. 2000. Tilapias: Biology and Exploitations. Kluwer. 4. De Silva SS. (Ed.). 2001. Reservoir and Culture Based Fisheries: Biology and Management. ACAIR Proceedings. 5. Midlen & Redding TA. 1998. Environmental Management for Aquaculture. Kluwer. 6. Pillay TVR. 1990. Aquaculture: Principles and Practices. Fishing News Books, Cambridge University Press, Cambridge. 7. Venugopal S. 2005. Aquaculture. Pointer Publ. 8. Welcomme RL. 2001. Inland Fisheries: Ecology and Management. Fishing News Books. 	