

COLLEGE OF FISHERIES, KISHANGANJ
BIHAR ANIMAL SCIENCES UNIVERSITY, PATNA

Lecture Plan/Schedule

Course Title: Freshwater Aquaculture

Course No.: AQC-121 3 (2+1)

Theory

Sl. No.	Course Title	No. of Lectures
1.	Major species cultured production trends and prospect in different parts of the world.	2
2.	Freshwater aquaculture resources-ponds, tanks, lakes, reservoirs etc.	1
3.	Nursery, rearing and grow-out ponds' preparation, management-control of aquatic weeds and algal blooms, predatory and weed fishes, liming, fertilization/manuring, use of biofertilizers, supplementary feeding. Water quality management.	4
4.	Selection, transportation, and acclimatization of seed and live fish	1
5.	Traits of important cultivable fish and shellfish and their culture methods-Indian major carps, exotic carps, air breathing fishes, cold water fishes, freshwater prawns, mussels.	4
6.	Wintering ponds, quarantine ponds and isolation ponds	1
7.	Sewage-fed fish culture	1
8.	Principles of organic cycling and detritus food chain	1
9.	Use of agro-industrial wastes and biofertilizer in aquaculture.	2
10.	Composite fish culture system of Indian and exotic carps-competition and compatibility.	1
11.	Exotic fish species introduced to India.	1
12.	Culture of other freshwater species. Medium and minor carps, catfish and murels.	2
13.	Recirculatory aquaculture system (RAS) and biofloc systems.	2
14.	Aquaculture in homestead and community ponds under individual and multi-ownership regime.	2
15.	Culture of self-recruiting minor carps and other forage fish species in perennial and seasonal ponds and other water bodies.	2
16.	Species of fish suitable for integrated aquaculture. Integration of aquaculture with agriculture /horticulture/ livestock.	2
17.	And use of inputs available at family farm and in the vicinity, in aquaculture.	1
18.	Makhana and trapa integration with fish.	1
19.	Paddy cum Fish/Shrimp Culture	1
	Total No. of Lectures	32

Course Teacher: Dr. Uday Kumar

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Practical

Sl. No.	Course Title	No. of Lectures
1.	Identification and familiarization with commercial freshwater cultured species.	2
2.	Preparation and management of nursery, rearing and grow-out ponds.	1
3.	Study on calculations and requirements of liming, manuring and fertilization of ponds in fish and shellfishes grow out.	2
4.	Collection, identification and control of aquatic weeds, insects	2
5.	Collection, identification and control of predatory fishes, weed fishes and eggs and larval forms of fishes	2
6.	Algal blooms identifications and their control.	1
7.	Estimation of plankton and benthic biomass.	1
8.	Studies on pond feed requirement, types and budgeting.	1
9.	Workout of economics of different culture practices.	1
10.	Estimation of live-stock requirement / unit in integrated aquaculture.	1
11.	Design of paddy plot for paddy-cum-fish culture	1
12.	Design of Fish and Shrimp culture, livestock shed on pond embankment	1
13.	Economics of different integrated farming system	2
	Total No. of Lectures	18

Course Teacher: Dr. Uday Kumar