DEPARTMENT OF INDUSTRIAL FISH AND FISHERIES
LESSION PLAN
SESSION 2023-24
SEMESTER – II

NAME OF TEACHER: TINKEY ACHARYA

PAPER ALLOTTED: FSDSC02T, FSDSC02P

Month	Paper	Content	No of classes
May 2024 (04.05.2024)	FSDSC02T	Excretion Structure of teleostean kidney; Osmoregulation in freshwater teleosts, marine teleosts and elasmobranches.	8
	FSDSC02P	Dissection - Alimentary system of fish (Tilapia and *Mystus* sp.). Dissection - Reproductive system of fish (Tilapia and *Mystus* sp.)	6
June 2024		Revision classes Class tests	
July 2024	FSDSC02P	Fecundity estimation in fish (Tilapia and *Mystus* sp.) Estimation of Gonado Somatic Index (GSI) in fish (Tilapia and *Mystus* sp.)	4
July 2024		Internal Examination & Class for Slow Learners	
August 2024		End Semester Examination	
		Total Classes	18

NAME OF TEACHER: DR. NANDITA MUKHERJEE

PAPER ALLOTTED: FSDSC02T, FSDSC02P, FSSE-2

Month	Paper	Content	No of classes
May 2024 (04.05.2024)	FSDSC02T	Feeding Biology Food and Feeding habit of fish- herbivores, carnivores and omnivores; Macrophagous, microphagous, benthophagous and planktivore feeding adaptations; General morphology of alimentary system of herbivorous, carnivorous and omnivorous fishes; Process of digestion in fish.	9
	FSDSC02P	Identification of scale types (Cycloid, Ctenoid and Placoid)	2

June 2024	**FSDSC02T**	**Reproductive Biology** **Reproductive system of fish and prawn (structure of ovary and testis; gonadal maturity stages).**	**5**
	FSDSC02P	**Dissection - Alimentary system of fish (Tilapia and *Mystus* sp.).** **Dissection - Reproductive system of fish (Tilapia and *Mystus* sp.)**	**6**
	FSSE-2	**Nutritional requirement of cultivable fish and shell fish; Feed additives: Growth promoter, immunostimulant, Prebiotics, Probiotics, Food colorant, Chemoattractant, Antioxidants, Binders, Enzymes; Feed formulation and manufacturing. Types of feed: Dry (pellet, flakes, crumbles, powder) and moist feed; Feed storage; Storage problems and remedial measures.**	**10**
July 2024	**FSDSC02T**	**Reproduction in fish - spawning behavior; factors affecting spawning in fish, oviparous, viviparous and ovo-viviparous fishes, types of eggs; Sexual dimorphism in fishes.**	**4**
	FSDSC02P	**Fecundity estimation in fish (Tilapia and *Mystus* sp.)** **Estimation of Gonado Somatic Index (GSI) in fish (Tilapia and *Mystus* sp.)**	**4**
July 2024		**Internal Examination &** **Class for Slow Learners**	
August 2024		**End Semester Examination**	
		Total Classes	**40**

Name of Teacher: Dr. DIBYENDU DUTTA

Paper Allotted: FSDSC02T, FSDSC02P, FSSE-2

Month	Paper	Content	No of classes
May 2024 (04.05.2024)	**FSDSC02T**	**Respiratory system- General description of respiratory organs in fish (type – shark and *Labeo* sp.); Aquatic respiration, respiratory gases and gaseous exchanges; Adaptation of air breathing fishes; Respiration in prawns.**	**6**
	FSDSC02P	**Identification of scale types (Cycloid, Ctenoid and Placoid).** **Collection of otolith (Tilapia)**	**4**
June 2024	**FSDSC02T**	**Cardiovascular system - General features of heart in fish, crustacean and Mollusca; blood circulatory system and oxygen transport in fishes.**	**6**

	FSDSC02P	**Dissection - Reproductive system of fish (Tilapia and *Mystus* sp.).Fecundity estimation in fish (Tilapia and *Mystus* sp.).**	**8**
	FSSE-2	**Feed Evaluation: Feed Conversion Ratio, Feed Conversion Efficiency; Protein Efficiency Ratio. Feeding devices: Demand feeder (bag method and check tray) and automatic feeder.**	**6**
July 2024	**FSDSC02T**	**Study of Fish Growth** **Fish growth - absolute and relative growth, isometric and allometric growth; Analysis of growth checks on hard parts (scales and otolith); Marking and tagging of fish for growth studies.**	**6**
	FSDSC02P	**Estimation of Gonado Somatic Index (GSI) in fish (Tilapia and *Mystus* sp.). Gut content analysis of finfish (*Labeo* sp.)**	**6**
July 2024		**Internal Examination &** **Class for Slow Learners**	
August 2024		**End Semester Examination**	
		Total Classes	**42**