FISHERY SCIENCE

Semester	Subject Code	Category	Lecture		Theory		Practical	Credits
			Hrs/ week	Total Hours/ Semester	Hrs/ week	Total Hours/ Semester		
I		Elective-I	3	45	3	45	Nil	3

COURSE OBJECTIVES

- The aim of the paper is to understand the morphology, classification and identification of fishes and the fisheries and fishery resources of India. Moreover, information about the biology of the fishes goes a long way in managing the fishery resources and their sustainable utilization.
- As fishes constitute perishable commodity, preservation and processing are also quite essential. To know the different methods of preservation and processing of fishes.

COURSE OUTCOMES

On the successful completion of the course, students will be able to:

CO Number	CO Statement	KnowledgeLevel (K1-K4)
CO1	To get employment opportunities in the Hatchery and Fish farm.To understand the classification and types of fishes.	K3&K2
CO2	To understand the growth and population dynamics of fishes.	K2
CO3	To acquire knowledge on present status and scope of Indian fishes.	K2
CO4	To analyze theinformation about fishery survey methods.	K4
CO5	To acquire knowledge aboutthe crafts and gears of fishes and also get knowledge about the types of spoilage, causative factors - marketing and economics.	K2

Knowledge Level : K1-Remember ; K2 –Understand ; K3 – Apply ; K4 – Analyze

MAPPING WITH PROGRAMME OUTCOMES

COS	PO1	PO2	PO3	PO4	PO5
CO1	S	S	M	S	S
CO2	M	M	S	S	M
CO3	S	S	S	M	S
CO4	M	S	M	S	M
CO5	S	M	S	M	S

S- Strong; M – Medium ; L- Low

DISTRIBUTION OF MARKS: THEORY 100%

UNIT-I **9 Hours**

BIOLOGY OF FISHES AND CLASSIFICATION

General morphology and outline classification of fishes - major groups of fishes and their characteristics - morphometric and meristic characters of elasmobranchs and teleost fishes. Basic anatomy of fish - digestive, circulatory, respiratory, nervous and reproductive systems. Food and feeding habits, maturity, fecundity, spawning and survival of Indian fishes.

UNIT-II **9 Hours**

GROWTH AND POPULATION DYNAMICS

Length-weight relationship and factors influencing growth condition, age determination Theory of fishing, unit stock, recruitment, growth, mortality, migration, fish tagging and marking.

UNIT-III **9 Hours**

INLAND CAPTURE AND MARINE CAPTURE FISHERIES OF INDIA

Fishery zones and type of fisheries in India. Riverine, Estuarine, Coldwater, Reservoir and Pond fisheries. Present status and scope of inland capture fisheries - their fishery characteristics, distribution and importance. Present status and scope (prawn/shrimp, lobster and cephalopods) and fishes - importance. of marine capture fisheries - crustaceans crabs), Molluscs (clam, cockle, mussel, oyster, their fishery characteristics, distribution and importance.

UNIT-IV **9 Hours**

FISHERY SURVEY METHODS

Methods of surveying the fishery resources - acoustic method, aerial method, survey of fish eggs and larvae, analyzing population features - growth mortality selection.

UNIT-V **9 Hours**

CRAFTS AND GEARS

Principal methods of exploitation of fishes - indigenous and modern gears and crafts. Principal methods of fish preservation and processing in India Types of spoilage, causative factors - marketing and economics.

TEXT BOOKS

S.NO	AUTHORS	TITLE	PUBLISHERS	YEAR OF PUBLICATION
1.	Day.F	Fishes of India, Vol.I and Vol. II	William Sawson & Sons Ltd., London	1981
2.	Jhingran, C.G	Fish and Fisheries of India	Hindustan Publishing Co.India.	1981

3.	Biswas, K. P	A Text Book of Fish, Fisheries and Technology.	Narendra Publishing House, Delhi.	1996
4.	Santhanam,R	Fisheries Science	Daya Publishing House, New Delhi	1980

REFERENCE BOOKS

S.NO	AUTHORS	TITLE	PUBLISHERS	YEAR OF PUBLICATION
1.	Yadav, B.N	Fish and Fisheries	Daya Publishing House, New Delhi	1997
2.	Bal D.V. and Rao, K.V.	Marine Fisheries of India.	Tata McGraw Hill Publishing Co. Ltd., New York.	1990
3.	Maheswari, K	Common fish diseases and their control	Institute of Fisheries Education, Powakads, M.P	1996
4.	Srivastava, C..L	Fish Biology	Narendra Publishing House, Delhi.	999

WEB SOURCES:

www.livescience.com

www.sciencemag.com

www.treehugger.com

www.nature.com

TEACHING METHODOLOGY

- Class room teaching
- Assignments
- Discussions
- Home test
- PPT Presentation
- Demonstration from the Video slides, videos and interactive software.

SYLLABUS DESIGNERS

- Dr D.Sasikala, Assistant Professor & HOD
- Dr.V.Kiruthiga, Assistant Professor
- Dr V.Rekha, Assistant Professor
- DrA.Vinodhini, Assistant Professor
- Dr.G.Vidhya, Assistant Professor
- Dr. S. Vijayakumari, Assistant Professor