

Course specific outcome:

Course	Expected outcome
IFFA CORE 1- Taxonomy of aquatic organism	Development of insight into – 1. Fish taxonomy 2. Crustacean taxonomy 3. Molluscan taxonomy
IFFA CORE 2- Biology of fish	Familiarity with – 1. Different types of feeding habits and types of food in fish and shellfish. 2. Physiology of digestion, circulation, excretion and respiration in finfish and shell fish. 3. Fin fish and shell fish reproduction and endocrinology. 4. Osmoregulation and specialized organs in fishes.
IFFA CORE 3- Fresh water aquaculture and aquatic ecology	Development of concept on – 1. Freshwater finfish and shell fish culture. 2. Different systems of aquaculture. 3. Freshwater aquatic ecosystem.
IFFA CORE 4- Coastal aquaculture and mariculture	Development of concept on – 1. Brackish water Finfish and shell fish culture. 2. Marine and brackish water ecosystem 3. Coastal aquaculture and mariculture.

IFFA CORE 5- Inland and marine fishery	Familiarity with – 1. Riverine, reservoir and coldwater fishery 2. Marine and estuarine fishery 3. Pelagic, demersal and deep sea resources. 4. Fishery assessment and regulations
IFFA CORE 6- Aquaculture nutrition & biochemistry	Development of insight into – 1. Nutrient requirement of fish & Feed ingredients and different types of fish feed manufacturing methods. 2. Feed management and feed quality of fish. 3. Larval nutrition and live feed culture 4. General introduction for importance of biochemistry in fisheries and food technology.
IFFA CORE 7- Post-harvest technology and quality control	Acquisition of knowledge on- 1. Fishing crafts and gears. 2. Responsible fisheries and fisheries legislation 3. Seafood spoilage 4. Different types of preservation, processing and packaging techniques of seafood. 5. Quality assurance and export of fishery products

IFFA CORE 8- Biostatistics and computer application	Basic knowledge on – 1. Bio statistics 2. Computer application
IFFA CORE 9- Biological tools and techniques	Basic knowledge on – 1. Microscopy 2. Chromatography 3. Electrophoresis 4. Histology
IFFA CORE 10- Ornamental fish culture	Development of concept on – 1. Construction and management of aquarium. 2. Common species of freshwater and marine ornamental fishes and their commercial production. 3. Nutrition and Disease of Ornamental fishes
IFFA CORE 11- Fish microbiology and pathology	Development of concept on – 1. Introduction to structure, isolation and culture of microbes and fish microbiology. 2. Pathology and fish parasitology 3. Pathogenic, nutritional and environmental fish diseases 4. Immunology and fish health management

IFFA CORE 12- Fish genetics and biotechnology	Development of insight into – 1. Basic genetics 2. Sex determination and hybridization in fish. 3. Aquaculture biotechnology and genetic manipulation in fish. 4. Marine biotechnology
IFFA CORE 13 – Fishery economics and extension + market survey	Familiarity with – 1. Various principles of economics and marketing and their importance to fishery. 2. Present status of economy of fishermen and fishery sector. 3. Socio-economic impact & rural development through fishery. 4. Different types of fisheries management tools.
IFFA CORE 14- Entrepreneurship development + On job training	Development of basic concept on- 1. Scope and importance of management. 2. Human resource, marketing and processing sector management. 3. Indian fishery acts. 4. Cooperatives and Agencies in Fisheries
DSE1- Fish Feed Preparation and Quality Control	Development of basic concept on- 1. Different aspects of feed preparation 2. Feed evaluation

DSE2- Ornamental Fish Production and Management	Development of insight into – 1. Different varieties of ornamental fish and aquarium management. 2. Breeding and rearing of ornamental fishes 3. Aquarium construction.
DSE4 Fish By products and Waste Utilization	Familiarity with – 1. Importance of different types of fish and shellfish by products. 2. Utilization of different seaweeds.
DSE5 Culture of live fish food organisms	Development of concept on – 1. Importance of live feed in aquaculture and their culture methods. 2. Proximate composition of live feed