

## **FISHERY SCIENCE**

B. Sc. First year (I - SEMESTER)

Semester Pattern effective from June 2019 FISHERY SCIENCE CCFS I

(Section-A) (P-I) Paper-I: Ichthyotaxonomy & Ecological Adaptation

Outcome of the course:-

1. Understand the classification of fishes.
2. Ability to understand morphometric and meristic characters of fishes.
3. Study about different type of migration, colouration, poison, gland in fishes.
4. Study about air bladder, Weberian ossicle, lateral line in fishes.

B. Sc. First year (I - SEMESTER)

Semester Pattern effective from June 2019 FISHERY SCIENCE CCFS I

(Section-B) (P-II) Paper-II: Type study: Wallago attu Fresh Water Shark

Outcome of the course:-

1. Detail study about freshwater fish Wallago attu.
2. Study about physiology of wallago attu.
3. To understand heart, brain of wallago attu.
4. Study about reproductive system of fresh water fish of wallago attu.

B. Sc. First year (II - SEMESTER)

Semester Pattern effective from June 2019 FISHERY SCIENCE CCFS II

(Section-A) (P-III) Paper-III: Fresh water fish culture technology

Outcome of the course:-

1. Study about aquaculture.
2. To understand nursery pond, rearing pond, stocking pond.
3. Study about preparation of fish pond.
4. Study about fish farming.

B. Sc. First year (II - SEMESTER)

Semester Pattern effective from June 2019 FISHERY SCIENCE CCFS II

(Section-B) (P-IV) Paper- IV: Fish Seed Production & Hatcheries Management

Outcome of the course:-

1. To study about natural seed collection.
2. To understand artificial breeding.
3. To understand transportation of fish seed.

B. Sc. First year (I & II SEMESTER)  
Annual Patter Effective from June 2019 FISHERY SCIENCE  
Practical Paper: CCFSP I (P-V)  
(Annual practical Based on CCFS I & II (Section A & B) Paper-V: Practical Syllabus

Outcome of the course:-

To study about freshwater fishes , adaptation in fishes, predatory fishes and dissection of fish.

B.Sc. Second Year (CBCS Pattern) From June 2017  
Semester- III  
Subject: - Fishery Science  
Theory Paper – VI Ecology & Fish Pathology

Outcome of the course:-

1. Understand the concept, causes and control major of water pollution.
2. Ability to understand structure and function of freshwater ecosystem.
3. Types of ecology and estuaries.
4. To understand fish diseases.

B.Sc. Second Year (CBCS Pattern) From June 2017  
Semester- III  
Subject: - Fishery Science  
Theory Paper - VII, Fish Biology

Outcome of the course:-

1. To study the stages and development of eggs.
2. To understand sexual dimorphism in fishes.
3. To understand linear growth.
4. Medicinal value and economic importance of fishes.

B. Sc. Second Year (CBCS Pattern) From June 2017  
Semester- IV  
Subject: - Fishery Science  
Theory Paper – VIII, Fish Anatomy, Physiology & Fish microbiology

Outcome of the course:-

1. To understand food and feeding habit of fishes.
2. Study of structure and function of different organs in fishes.
3. To understand the structure and function of gland.
4. Study of different type of spoilage in fishes.

B. Sc. Second Year (CBCS Pattern) From June 2017  
Semester- IV

Subject: - Fishery Science  
Theory Paper –IX, Fish Technology & Processing

Outcome of the course:-

1. To study the different type of hunting and netting for to catch the fishes.
2. Different type of craft.
3. To study the different type of fish preservation.
4. Understand fish preservation problems.

B. Sc. Second Year (CBCS Pattern) From June 2017  
CCFSPR-II  
Semester- III & IV  
Subject: - Fishery Science  
Practical Paper based on Theory Paper VI & VIII  
Paper- X

Outcome of the course:-

1. To study the dissolve oxygen.
2. Different type of fresh and marine water fishes.
3. To study fish protein, fat, carbohydrate.

B. Sc. Second Year (CBCS Pattern) From June 2017  
CCFSPR-III  
Semester- III & IV  
Subject: - Fishery Science  
Practical Paper based on Theory Paper VII & IX  
Paper- XI

Outcome of the course:-

1. Dissection of brain, air bladder, digestive system.
2. Study and fishing craft and gears.
3. To study fish preservation.

B. Sc. Second Year (CBCS Pattern) From June 2017  
Semester- III&IV  
Subject: - Fishery Science  
SEC: Scheme of B. Sc Second Year (III&IV Sem.) Programme  
Fishery Science under Science Faculty CBCS Pattern From June 2017

Skill Enhancement course (any Two) (Credit: 02 each)  
SEC I TO SEC IV: Fishery Science

Outcome of the course:-

1. Study of fish product.
2. Study of fish nets.

B. Sc. Second Year (CBCS Pattern) From June 2017

Semester- III

Subject: - Fishery Science

SEC: Scheme of B. Sc Second Year (III Sem.) Programme

Fishery Science under Science Faculty CBCS Pattern From June 2017

Skill Enhancement course (any One) (Credit: 02 each)

Syllabus: SEC –I A

A- Manufacturing of fish by-products.

Outcome of the course:-

1. To study the fish product which are useful for human being.

Syllabus: SEC I –B

Fresh water fish production technology.

Outcome of the course:-

1. Ability to understand aquaculture.

B. Sc. Second Year (CBCS Pattern) From June 2017

Semester- IV

Subject: - Fishery Science

SEC: Scheme of B. Sc Second Year (IV Sem.) Programme

Fishery Science under Science Faculty CBCS Pattern From June 2017

Skill Enhancement course (any One) (Credit: 02 each)

Syllabus: SEC II A

A) Fish Preservation and Processing Technology.

Outcome of the course:-

1. To study different type of fish diseases.
2. To study different type of fish preservation.

Syllabus SEC II B

Manufacturing of Fishing Nets.

Outcome of the course:-

1. To study different type of net and gear materials.

SYLLABUS(W E F JUNE – 2018)

B. Sc Third Year Vth Semester

Subject: - Fishery Science  
Theory Paper - XII Indian Fisheries and Mericulture (A)

Outcome of the course:-

1. Detail study about marine water fishes .
2. Detail study about mericulture .
3. Study about estuarine fisheries in India.

SYLLABUS (WEF JUNE – 2018)

B. Sc Third Year V Semester

Subject: - Fishery Science

Theory Paper – XIII

Aquaculture Technique and Fish nutrition (Elective B I)

Outcome of the course:-

1. Study about culture of IMC and Air breathing fishes.
2. To study about marine water prawn culture.
3. Study about aquaculture and probiotics.

B.Sc. Third Year (CBCS Pattern)

Syllabus (W E F June 2018)

Semester- V

Subject: - Fishery Science

Theory Paper XIII

Soil and Water Quality Management In Aquaculture (Elective B II)

Outcome of the course:-

1. Study about physical and chemical properties of water.
2. Study about fertilizer and manures.

B.Sc. Third Year (CBCS Pattern)

Syllabus (WEF June 2018)

Semester- V

Subject: - Fishery Science

SECFS III (A)

Fish Feed Production Technology

Outcome of the course:-

1. To understand study about fish feed, ingredients for fish feed.

B.Sc. Third Year (CBCS Pattern)

Syllabus from June 2018

Semester- V

Subject: - Fishery Science

SECFS III (B)

Culture of Fish Food Organisms

Outcome of the course:-

1. To study different of culture of fish food organisms.

SYLLABUS (WEF JUNE – 2018)

B. Sc Third year VI Semester  
Subject: - Fishery Science  
Theory Paper – XIV

Aquarium Keeping and Rearing Of Ornamental Fishes (A)

Outcome of the course:-

1. To study of fish aquarium, maintenance of aquarium.
2. Study of ornamental fishes.
3. To study about diseases of ornamental fishes.

SYLLABUS (WEF JUNE – 2018)

B. Sc Third year VI Semester  
Subject: - Fishery Science  
Theory Paper – XV

Fish Economics, Marketing, Cooperative and Extension  
(Elective B I)

Outcome of the course:-

1. To understand the ability of fish marketing.
2. Study about fish cooperative and fisheries extension.

B.Sc. Third Year (CBCS Pattern)

Syllabus (WEF June 2018)

Semester- VI

Subject: - Fishery Science

Theory Paper –XV

Nutrition and Feed Technology (Elective B II)

Outcome of the course:-

1. To understand the ability of fish nutrition.

B.Sc. Third Year (CBCS Pattern)

Syllabus (WEF June 2018)

Semester- VI

Subject: - Fishery Science

SEC IV (Theory)

Fabrication of Aquarium (A)

Outcome of the course:-

1. Detail study about fabrication of Aquarium.

B.Sc. Third Year (CBCS Pattern)

Syllabus (W E F from June 2018)

Semester- VI

Subject: - Fishery Science  
SEC IV (Theory)  
Breeding Techniques of Ornamental Fishes (B)

Outcome of the course:-

1. To understand the ability of different type of breeding techniques in Ornamental fishes.

SYLLABUS (WEF JUNE – 2018)  
B. Sc III Year Semester V&VI.  
Fishery Science.  
Practical Paper – XVI  
(Based on XII+XIV)

Outcome of the course:-

1. To Study of fishing crafts and gears
2. Identification, classification and commercial importance of Fish.

SYLLABUS ( WEF JUNE – 2018)  
B. Sc III Year Semester V&VI  
Fishery Science  
Practical Paper – XVII (B I)  
(Based on XIII+XV)

Outcome of the course:-

- 1.To Study of cultivable fishes.

B.Sc. Third Year (CBCS Pattern)  
Syllabus ( WEF June 2018)  
Semester- V and VI  
Subject: - Fishery Science  
Practical Paper- XVII (Elective B II)  
Based on XIII(BII)+XIV(BII)

Outcome of the course:-

1. To Study of fish feed ingredients.
- 2.To Study of Aquatic weeds.