

V SEMESTER
Course No.:14: Fishery Engineering
credits :3

Course outcomes:

- CO1:** Have knowledge on traditional, motorized and mechanized fishing crafts of India
CO2: Gain Knowledge on Design of fishing gear and fish catching methods
CO3: Learn about the type of anchors and Navigation equipment
Co4: Gain Knowledge on Remote sensing applications in fish finding and catching
CO5: Learn about the Fish Processing Equipment

SYLLABUS

UNIT I: Fishing crafts

- 1-1 Different types of fishing crafts in India- inland and marine– traditional, motorized and mechanized.
1-2 Classification of fishing craft.
1-3 Boat building materials - wood, steel, FRP, ferro-cement, aluminum etc.,
1-4 Mechanization of fishing craft and its impact

UNIT II: Fishing gear

- 2-2 Design of fishing gear and fish catching methods
2-2 Fishing accessories, Netting materials – natural and synthetic fishing gear materials and yarn numbering system
2.3 Active fishing gear - classification and description of modern fishing gears.- Design and operation of –trawls, purse seines, ring seines, beach / shore seine, boat seine, pole and line, squid jigs, trolling.

UNIT III: Anchors, Fish Finding & Navigational Equipment (Introductory)

- 3-1 Types of Anchors – Chains, ropes, blocks, leads and drogues
3-2 Echo sounders, fish finders, sonar and net sonde
3-3 Chronometer, gyro compass, radar, decca, omega etc.

UNIT IV: Exploration of fish and Conservation

- 4-1 Remote sensing applications in fish finding and catching
4-2 Turtle exclusion devices
4-3 By-catch reduction devices
4-4 Destructive and prohibited fishing practices

UNIT V: Fish Processing Equipment

- 5-1 Ice making machinery, Brine tank
5-2 Arrangements for leak detection
5-3 Operation of various freezing machinery
5-4 Special equipment for freeze-drying, irradiation and cryogenics

V SEMESTER
Course No.: 14 - Fishery Engineering
credits :1

PRACTICALS:

1. Site survey: preparation of site map and contour map
2. Ice making and harvesting
3. Testing different netting materials- natural and synthetic
4. Estimation of buoyancy and de-buoyancy of different floating and sinking materials
5. Designing trawl net by conducting survey
6. Solving problems on finding position of gravity, flotation and buoyancy
7. Visit to fishing harbor to study deck machinery
8. Visit to fishing harbor to study hull equipment
9. Visit to boat building yard and dry docking yard
10. Visit to a fish processing unit to study the equipment used in fish processing

PRESCRIBED BOOKS:

1. Fridman Al 1992. Calculations for fishing gear designs. FAO, USA. Fishing news books Ltd, England
2. Gerhard Klust 1982. Netting material for fishing gears. FAO, USA. Fishing news books Ltd, England
3. Jan-Olf- Traung 1992. Fishing boats of the world- Volumes – 1, 2, & 3. FAO, USA. Fishing news books Ltd, England

REFERENCES:

1. Dag Pike 1992. Fishing boats and their equipment. FAO, USA. Fishing news books Ltd, England