

Syllabus for Instructor (fisheries)

- Present status of fisheries in India. Basics of Aquaculture, Fish processing technology, fisheries resource management, aquatic environment. Marine and inland fisheries.
- History and development of fishing craft. Traditional fishing crafts of India: Inland & Marine waters. Boat building materials-wood, steel, ferrocement, aluminium and fibre glass; their preparation, seasoning, preservation and their advantages and disadvantages. Boat design-important terminologies of fishing vessel. Basic mathematics and hydrodynamics for designing of fishing vessels. Stability of fishing vessel. Basic resistance of boats. Marine engines and propellers. Estimation of engine power for fishing vessel. Boat construction methods. Deck fitting and maintenance-common fauling and boring organisms. Preservation and maintenance of various types of hull. Fishing equipments. Rules and regulations for fishing vessel fabrication, operation and safety. Various types of fishing craft-trawler, purse seiner, gill netter, long liner etc.
- History and development of fishing gear. Factors that determine selection of fishing gears. Fishing gear materials. Terminology related to fabrication and mending. Yarn numbering systems. Fishing gear accessories. Maintenance and storage of fishing gears and gear materials. Preservation of netting and other accessories. FAO classification of fishing gear and methods. Modern commercial fishing methods-trawling, seining, gill netting, line fishing, jigging and trolling. Navigational equipments-GPS, Fish finder, SONAR, Net sonde. Gear handling equipments.
- Navigational aids, magnetic compass, gyro compass, sextant, bearing instruments their construction, errors and use. Chart abbreviation and symbols. Sounding instruments and their principles. Pilot signals, distress signals and penalty for their misuse. Fire fighting and life saving appliances to be carried onboard a fishing vessel as per F.F.A. and L.S.A. rules 1978. Manning requirements for fishing vessels. Electronic navigation and communication aids.
- Law of thermodynamics. Refrigeration: principle of refrigeration, refrigeration cycle and methods of refrigeration. Lay out and construction of freezing plant, cold storage, contact plate freezer, immersion freezer, tunnel freezer, air blast freezer, air lock system, anti room arrangement, ice manufacturing unit, marine refrigerating plant. Deck and fish hold. Anchors and mooring of fishing vessel.


Registrar
Junagadh Agricultural University
Junagadh.