

COLLEGE OF FISHERIES, KISHANGANJ
BIHAR ANIMAL SCIENCES UNIVERSITY, PATNA

Lecture Plan

Course code: AAHM-222

Course Title: Therapeutics in Aquaculture

Credit hrs: 2 (1+1)

Programme: B.F.Sc.

Course Teacher: Dr Sudeshna Sarker

Theory	
Topics	No. of Classes
1. Scope and current scenario of therapeutics in aquaculture. Chemotherapy: History, definition, terms used and classification of Antimicrobial agent.	1
2. Antibacterial agents, mode of action, general principles, classification.	1
3. Antibiotics, different classes and their mode of action, properties etc. Antimicrobial Resistance (AMR).	2
4. Antiseptics and disinfectants.	1
5. Antiparasitics: for ectoparasite, endoparasites and Protozoans.	1
6. Antibiotics used in aquaculture.	1
7. FDA approved antibiotics, drugs and chemical abuses in aquaculture.	1
8. Biologics: Immuno-stimulants and Vaccines-Principles in preparation/formulation, mechanism of action.	1
9. Drug formulation for aquaculture- Principles in preparation/formulation, mechanism of action.	1
10. Drug leaching, stabilizer, binders and dosage.	1
11. Therapeutants in aquaculture: Classification, pesticides, fungicides/ algacide, hormones, anesthetics, flesh color enhancers.	1
12. Chemicals of therapeutic value, Low priority aquaculture drugs.	1
13. Drugs used for structural material and substances for maintenance, substances connected with zoo technical practices.	1
14. List of the drugs used in aquaculture with therapeutics.	1
15. Concern of antimicrobial resistance and alternative strategy.	1
Total Number of classes: 16	
Practical	
1. Regulations of drug use.	2
2. Introduction to antimicrobials.	2
3. Preparation of potassium permanganate solution.	2
4. Preparation of weak Tincture Iodine.	2
5. Minimum inhibitory concentration (MIC).	2
6. Five-plate screening test for the detection of antibiotic residue.	2
7. Calculation of different disinfectants dosage in treating fish ponds.	2
8. Generic name, patent name, dosage and indications of various aquaculture drugs used in fish health.	2
Total Number of classes: 16	



Course Instructor