

College of Fisheries, Kishanganj
Bihar Animal Sciences University, Patna
Lecture Plan (B.F.Sc. 6th Sem, Batch: 2023)

Course Title: Microbial and Parasitic Diseases of Fish and Shellfish
Course code & Credit hrs: AAHM-321; 3 (2+1)
Course Assigned: Dr. Pushpa Kumari

Theory Classes		
Sl. No.	Topics	No. of Classes
1.	General characteristics, life cycle, diagnosis, prevention, eradication and treatment of parasitic, bacterial, fungal and viral diseases of finfish	4
2.	General characteristics, diagnosis, prevention, and treatment of viral bacterial, parasitic and fungal diseases of shellfish.	4
3.	OIE listed diseases.	1
4.	Disease surveillance and reporting.	2
5.	Quarantine and health certification in aquaculture.	1
6.	Health management strategies in Aquaculture: Vaccines	2
7.	Health management strategies in Aquaculture: Immuno-stimulants, Bioremediation	2
8.	Probiotics & Crop rotation in aquatic animal health management	2
9.	Good & Best management practices in aquaculture	2
10.	SPF and SPR stocks – development and application	1
11.	Bio-security principles, Sanitary and Phytosanitary Agreement	2
12.	Disease control through environmental management.	2
13.	Importance of Biofilm, Biofloc, Periphyton in Aquatic Animal Health Management	2
14.	Zoonotic diseases	1
15.	Principles of disease diagnosis, conventional & antibody based diagnostic methods	2
16.	Rapid diagnostic molecular techniques of disease diagnosis	2
Total Number of classes		32
Practical Classes		
1.	General procedure for disease diagnosis.	1
2.	Methods of sampling fish and shellfish for disease diagnosis.	2
3.	Taxonomy, lifecycle and identification of fish and shellfish parasites	2
4.	Sampling, preparation of media and culture of pathogenic bacteria	2
5.	Techniques for bacterial classification	1
6.	Techniques in disease diagnosis: hematological, histopathological, immunological, molecular techniques and biochemical tests.	4
7.	Challenge test with pathogens on fish	1
8.	Purification of virus	1
9.	Stress related study of fish and shellfish diseases	1
10.	Disease treatment	1
Total Number of classes		16

Signature of Course Instructor:

Name of Course Instructor: Dr. Pushpa Kumari