# VM4202: AQUATIC VETERINARY MEDICINE

#### **Effective Term**

Semester B 2024/25

# Part I Course Overview

#### **Course Title**

Aquatic Veterinary Medicine

## **Subject Code**

VM - Jockey Club College of Veterinary Medicine and Life Sciences

# **Course Number**

4202

#### **Academic Unit**

Infectious Diseases and Public Health (PH)

#### College/School

Jockey Club College of Veterinary Medicine and Life Sciences (VM)

#### **Course Duration**

One Semester

#### Credit Units

2

#### Level

B1, B2, B3, B4 - Bachelor's Degree

# **Medium of Instruction**

English

# **Medium of Assessment**

English

# **Prerequisites**

Completion of Year 4 courses with C grade or above

#### **Precursors**

Nil

# **Equivalent Courses**

Nil

#### **Exclusive Courses**

Nil

# Part II Course Details

# **Abstract**

This course will build on the previous fish health BVM course (VM2106). It will focus on diagnostic and treatments used for fish and crustacean diseases, which will prepare student for the clinical year rotation in aquatic animal medicine. The

main viral, bacterial, parasitic, fungal, and environmental diseases of crustaceans and fish species will be presented using a case-based problem teaching approach. Students will learn how to treat and prevent these diseases. We will also cover surgical procedures done on ornamental fish species. Other topics covered will include legislation, regulations, and policies on aquatic animal veterinary practice, as well as current issues on aquatic animal welfare.

# **Course Intended Learning Outcomes (CILOs)**

	CILOs	Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	Obtain and analyze medical histories to determine appropriate diagnostic tests for fish and crustacean cases		X	X	
2	Formulate diagnoses based on the interpretation of diagnostic test results from fish and crustacean cases		X	X	
3	Recommend appropriate treatments, including drug dosages, for common diseases of fish and crustaceans		X	X	
4	Develop prevention strategies for common diseases of fish and crustaceans		X		
5	Perform minor surgical procedures on ornamental fish, and apply knowledge of the laws, regulations, and policies that impact aquatic animal veterinary practice		X	X	х

#### A1: Attitude

Develop an attitude of discovery/innovation/creativity, as demonstrated by students possessing a strong sense of curiosity, asking questions actively, challenging assumptions or engaging in inquiry together with teachers.

#### A2. Ability

Develop the ability/skill needed to discover/innovate/create, as demonstrated by students possessing critical thinking skills to assess ideas, acquiring research skills, synthesizing knowledge across disciplines or applying academic knowledge to real-life problems.

#### A3: Accomplishments

Demonstrate accomplishment of discovery/innovation/creativity through producing /constructing creative works/new artefacts, effective solutions to real-life problems or new processes.

# Learning and Teaching Activities (LTAs)

	LTAs	Brief Description	CILO No.	Hours/week (if applicable)
1	Lectures	Students will participate in lectures that provide aquatic animal medicine principles and case studies	1, 2, 3, 4	3 hrs / wk for 6 weeks

2	Laboratory-based	Students will engage	5	9 hours in total (3 three
	practical sessions	in laboratory-based		hour labs)
		practical sessions that		
		provide opportunities		
		to perform minor		
		surgical procedures on		
		ornamental fish, witness		
		and analyze surgical		
		procedures performed at		
		Ocean Park and conduct		
		laboratory diagnostic		
		tests, including IQplus		
		PCR		

## Assessment Tasks / Activities (ATs)

ATs	С	CILO No.		Remarks (e.g. Parameter for GenAI use)
1 Midterm	exam 1,	., 2, 3, 4, 5	50	Written test

# Continuous Assessment (%)

50

## **Examination (%)**

50

# **Examination Duration (Hours)**

2

## **Assessment Rubrics (AR)**

# Assessment Task

1. Midterm Exam

# Criterion

Students will demonstrate their knowledge of the material covered in the classroom on aquatic animal medicine by communicating it effectively in written format.

## Excellent (A+, A, A-)

Students achieve an 82% or greater on the examination of the class.

## Good (B+, B, B-)

Students achieve a 61% or greater on the examination of the class.

#### Fair (C+, C, C-)

Students achieve a 50% or greater on the examination of the class. (C letter grade is at least 50% or greater)

# Failure (F)

Students achieve less than 50% on the examination of the class and laboratory material.

# **Assessment Task**

2. Examination

#### Criterion

Students will demonstrate their knowledge of the material covered in the classroom and laboratory sessions on aquatic animal medicine by communicating it effectively in written format.

# Excellent (A+, A, A-)

Students achieve an 82% or greater on the examination of the class.

#### Good (B+, B, B-)

Students achieve a 61% or greater on the examination of the class.

## Fair (C+, C, C-)

Students achieve a 50% or greater on the examination of the class. (C letter grade is at least 50% or greater)

#### Failure (F)

Students achieve less than 50% on the examination of the class and laboratory material.

#### Additional Information for AR

#### Mark Range

The following is the mark range for each letter grade that must be used for assessment of any examinations or coursework of BVM courses (VM- and GE-coded) offered by PH and VCS.

Letter Grade	Mark Range	Letter Grade	Mark Range
A+	≥92%	C+	54-60.99%
A	87-91.99%	С	50-53.99%
A-	82-86.99%	F	<50%
B+	75-81.99%		
В	68-74.99%		
B-	61-67.99%		

# Part III Other Information

## **Keyword Syllabus**

Aquatic animal medicine; treatment and prevention of fish and crustacean diseases

#### **Reading List**

# **Compulsory Readings**

	Citle	
1	Selected reading material fish diseases assigned throughout the course	

## **Additional Readings**

	Title
1	Holmes K. and Pitham T. 2011. Manual of Koi Health 2nd. Firefly Books Inc. Buffalo, NY.
2	Stoskopf, MK. Fish Medicine. 1993. WB Saunders Company, Philadelphia, Pennsylvania.
3	Leatherland, J. F., Woo, P. T. K., & Bruno, D. W. 1995. Fish diseases and disorders (V1-3). Wallingford, Oxon, UK: CABI Pub.
4	Noga, E, J., 2014. Fish Disease Diagnosis and Treatment 2nd ed. Wiley Blackwell, Daryaganj, New Delhi.