

**City University of Hong Kong
Course Syllabus**

**offered by the Department of Infectious Diseases and Public Health
with effect from Semester B 2018/19**

Part I Course Overview

Course Title: Introduction to Zoonoses

Course Code: VM 2105

Course Duration: 1 semester

Credit Units: 3 credits

Level: B2

Proposed Area: Arts and Humanities
(for GE courses only) Study of Societies, Social and Business Organisations
 Science and Technology

Medium of Instruction: English

Medium of Assessment: English

Prerequisites: Completion of Year 1 courses with C grade or above
(Course Code and Title)

Precursors: Nil
(Course Code and Title)

Equivalent Courses: Nil
(Course Code and Title)

Exclusive Courses: Nil
(Course Code and Title)

Part II Course Details

1. Abstract

(A 150-word description about the course)

This course prepares veterinary students to understand the basic principles of zoonotic diseases. The course will cover the ecological and epidemiological relationships between zoonotic infectious agents, their hosts (animals, humans) and the environment. This will enable the students to become familiar with measures related to disease prevention and mitigation (including outbreak investigation), in order to protect animal and public health.

Rabies will be used as a model for zoonoses transmitted directly to humans. Avian influenza will be discussed with emphasis on local and regional epidemiology. Emerging and re-emerging diseases to be addressed include MERS, SARS, Q fever and Henipavirus infections. Other zoonoses transmitted by animal bites and scratches will also be presented, as well as rodent-borne zoonoses such as those caused by Hantaviruses and leptospirosis. Vector-borne diseases will cover mosquito-borne pathogens (viral encephalitides, Rift Valley fever etc.), tick-borne pathogens (Lyme disease, tularemia) or flea-borne pathogens (typhus, plague), and will include principles on the relationships between vectors and their vertebrate hosts, such as vectorial capacity. Other zoonoses such as brucellosis, anthrax, tuberculosis and some parasitic infestations such as leishmaniasis will also be discussed. Special emphasis will be given on the multiple factors driving the emergence and transmission of zoonotic diseases. The burden of zoonoses globally, as well as preventive measures, surveillance systems and the concept of notifiable diseases will also be addressed.

2. Course Intended Learning Outcomes (CILOs)

(CILOs state what the student is expected to be able to do at the end of the course according to a given standard of performance.)

No.	CILOs [#]	Weighting* (if applicable)	Discovery-enriched curriculum related learning outcomes (please tick where appropriate)		
			A1	A2	A3
1.	Have a profound understanding of zoonoses, including their epidemiology and pathobiology, clinical signs, diagnosis, treatment, prevention and how to take appropriate action, including the concept of disease notification (AVBC, RCVS, OIE)	30	✓	✓	
2.	Understand the factors driving the emergence or re-emergence of zoonoses.	30	✓	✓	✓
3.	Have a detailed knowledge about zoonoses relevant to the region and what burden they pose onto the community	25	✓	✓	
4.	Understand the basic principles of vector-borne diseases and the relationships between vectors, their hosts and the environment.	15	✓	✓	
		100%			

* If weighting is assigned to CILOs, they should add up to 100%.

[#] Please specify the alignment of CILOs to the Gateway Education Programme Intended Learning outcomes (PILOs) in Section A of Annex.

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 self-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.

3. Teaching and Learning Activities (TLAs)

(TLAs designed to facilitate students' achievement of the CILOs.)

TLA	Brief Description	CILO No.				Hours/week (if applicable)
		1	2	3	4	
Lectures	Overview of zoonoses, with examples of specific diseases.	✓	✓	✓	✓	1 hr/wk
Tutorials	Group discussion about emerging zoonoses and the factors influencing their emergence and spread	✓	✓	✓	✓	1 hr/wk
Presentation	Present a topic on a specific zoonosis	✓	✓	✓	✓	1 hr/wk

4. Assessment Tasks/Activities (ATs)

(ATs are designed to assess how well the students achieve the CILOs.)

Assessment Tasks/Activities	CILO No.					Weighting*	Remarks
	1	2	3	4			
Continuous/intermediate Assessments: <u>50%</u>							
Presentations on a specific zoonosis	✓	✓	✓	✓		20%	
Short essays on zoonoses related subject	✓	✓	✓	✓		20%	
Quizzes	✓	✓	✓	✓		10%	
Examination: <u>50%</u> (duration: 2 hours)	✓	✓	✓	✓			
						100%	

** The weightings should add up to 100%.*

5. Assessment Rubrics

(Grading of student achievements is based on student performance in assessment tasks/activities with the following rubrics.)

Assessment Task	Criterion	Excellent (A+, A, A-)	Good (B+, B, B-)	Fair (C+, C)	Failure (F)
1. Presentation of a category of zoonoses	Able to prepare and present an in-depth presentation highlighting the special characteristics of a particular group of zoonoses with regards to its epidemiology, pathobiology, prevention and control	Displays high competency in developing a presentation and able to elucidate the significant attributes of a specific group of zoonoses	Displays good competency in developing a presentation and able to elucidate the significant attributes of a specific group of zoonoses	Displays competency in developing a presentation and able to elucidate the significant attributes of a specific group of zoonoses	Lacks competency in developing a presentation and unable to elucidate the significant attributes of a specific group of zoonoses
2. Short essay on a zoonoses related subject.	Able to select and research about a zoonoses related subject showing understanding of zoonoses as a public health issue and One Health issue	Shows a very good understanding of zoonoses and its relationship with humans and the One Health paradigm	Shows a good understanding of zoonoses and its relationship with humans and the One Health paradigm	Shows an understanding of zoonoses and its relationship with humans and the One Health paradigm	Shows a poor good understanding of zoonoses and its relationship with humans and the One Health paradigm
3. Final Exam	Able to demonstrate knowledge and understanding of the epidemiology of zoonoses, recognise potential signs and take appropriate action, including notifying local authorities (AVBC)	Able to demonstrate excellent knowledge and understanding of the epidemiology of zoonoses and their impacts on the environment (AVBC)	Able to demonstrate good knowledge and understanding of the epidemiology of zoonoses and their impacts on the environment (AVBC)	Able to demonstrate knowledge and understanding of the epidemiology of zoonoses and their impacts on the environment (AVBC)	Unable to demonstrate knowledge and understanding of the epidemiology of zoonoses and their impacts on the environment (AVBC)

Part III Other Information (more details can be provided separately in the teaching plan)

1. Keyword Syllabus

(An indication of the key topics of the course.)

Zoonoses, emerging diseases, one health, vectors, arbo-viruses.

2. Reading List

2.1 Compulsory Readings

(Compulsory readings can include books, book chapters, or journal/magazine articles. There are also collections of e-books, e-journals available from the CityU Library.)

1.	<i>Zoonoses and communicable diseases common to man and animals. Vol.1-3. PAHO.</i>
2.	<i>Palmer et al. Zoonoses Oxford Textbook of Zoonoses: Biology, Clinical Practice, and Public Health Control</i>
3.	<i>Hugh-Jones et al. Zoonoses Recognition, Control and Prevention. Iowa State University Press.</i>
4.	<i>Marquardt et al. Biology of disease vectors. 2nd Ed. Elsevier.</i>

2.2 Additional Readings

(Additional references for students to learn to expand their knowledge about the subject.)

1.	None
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