



香港城市大學
City University of Hong Kong

City University of Hong Kong Course Syllabus

offered by Department of Biomedical Sciences
with effect from Semester A 2024/2025

Part I Course Overview

Course Title: Immunology and Infectious Diseases

Course Code: BMS8111

Course Duration: One semester

Credit Units: 3

Level: R8

Medium of Instruction: English

Medium of Assessment: English

Prerequisites:
(Course Code and Title) Nil

Precursors:
(Course Code and Title) Nil

Equivalent Courses:
(Course Code and Title) Nil

Exclusive Courses:
(Course Code and Title) Nil

Part II Course Details

1. Abstract

This course covers advanced knowledge of innate and adaptive immunity, along with the mechanisms used by pathogens to invade, replicate and spread within human and animal populations. Students will learn the basic principles underlying host-pathogen interactions and the experimental tools required to understand those interactions. On the immunology side, this course will cover the signaling pathways in the context of infection and autoimmune dysfunction. On the pathogen side, students will study a wide variety of disease agents (ranging from viruses to bacteria, protozoal, and worms pathogens) in order to identify the mechanisms they use to establish acute and chronic infection in different host species.

2. Course Intended Learning Outcomes (CILOs)

No.	CILOs [#]	Weighting	Discovery-enriched curriculum related learning outcomes		
			A1	A2	A3
1.	To acquire basic knowledge on innate and adaptive immune systems	25%	✓	✓	
2.	To understand signaling pathways in the context of infection and autoimmune dysfunction	25%		✓	
3.	To understand wide variety of disease agents in order to identify the mechanisms they use to establish acute and chronic infection in different host species	25%		✓	✓
4.	To acquire basic knowledge on infectious agents for specific diseases.	25%		✓	✓
		100%			

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. Learning and Teaching Activities (LTAs)

LTA	Brief Description	CILO No.				Hours/week
		1	2	3	4	
Lectures	Basic knowledge will be taught mainly by lectures.	✓	✓	✓	✓	2 hours/week (26 hours in total)
Tutorials	A forum for problem solving by applying the knowledge learned from the lectures.	✓	✓	✓	✓	1 hour/week (13 hours in total)

4. Assessment Tasks/Activities (ATs)

Assessment Tasks/Activities	CILO No.				Weighting	Remarks
	1	2	3	4		
Continuous Assessment: 100%						
Group presentation and final report	✓	✓	✓	✓	100%	
Examination: 0%						
					100%	

5. Assessment Rubrics

Applicable to students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter

Assessment Task	Criterion	Excellent (A+, A, A-)	Good (B+, B, B-)	Fair (C+, C, C-)	Marginal (D)	Failure (F)
1. Coursework (Group presentation)	Mid-term Quizzes: Quiz score will be used to verify the state of students' learning progress	High	Significant	Moderate	Less than Basic	Not even reaching marginal levels
2. Final report	To test students' basic knowledge learnt in class and see whether they can apply the knowledge in case studies	High	Significant	Moderate	Less than Basic	Not even reaching marginal levels

Applicable to students admitted from Semester A 2022/23 to Summer Term 2024

Assessment Task	Criterion	Excellent (A+, A, A-)	Good (B+, B)	Marginal (B-, C+, C)	Failure (F)
1. Coursework (Group presentation)	Mid-term Quizzes: Quiz score will be used to verify the state of students' learning progress	High	Significant	Moderate	Not even reaching marginal levels
2. Final report	To test students' basic knowledge learnt in class and see whether they can apply the knowledge in case studies	High	Significant	Moderate	Not even reaching marginal levels

Part III Other Information

1. Keyword Syllabus

Innate Immunity, Adaptive Immunity, Microbial pathogenicity, Pathogen-host interactions, Regulation of gene expression, Genetics of infectious diseases

2. Reading List

2.1 Compulsory Readings

1.	Gerald B. Pier, Jeffrey B. Lyczak, Lee M. Wetzler. Immunology, infection, and immunity. ASM Press, 2004.
2.	Hofman P. Infectious Disease and Parasites. Springer, 2016.

2.2 Additional Readings

Kay AB, Bousquet J, Holt P, Kaplan AP. Allergy and allergic diseases. Wiley-Blackwell, 2008