City University of Hong Kong
Course Syllabus

offered by Department of Infectious Diseases and Public Health
with effect from Semester A 2024/25

Part I   Course Overview

Course Title: Applied Public Health Projects

Course Code: PH6203

Course Duration: Two Semesters (Semester A plus Semester B)

Credit Units: 9 credits (Semester A: 3, Semester B: 6)

Level: P6

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**

Students will have the opportunity to conduct their own Public Health project in this course, from data cleaning and statistical analysis to interpretation and write-up. They will review the types of questions that can be answered using different public health and/or animal disease databases. Students will be expected to deliver a draft manuscript and present their project to their classmates, which will provide them with experience in public speaking. The course presentations will be open to the public.

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.	Demonstrate an ability to formulate an applied public health or one health hypothesis		✓	✓	
2.	Clean, organize and perform analyses on public or animal health dataset(s) to test a hypothesis		✓	✓	✓
3.	Interpret results of statistical analyses		✓	✓	✓
4.	Write and present findings for research project		✓	✓	✓
		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 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.

3. Learning and Teaching Activities (LTAs)
(LTAs designed to facilitate students' achievement of the CILOs.)

LTA	Brief Description	CILO No.						Hours/week (if applicable)
		1	2	3	4			
Lectures	Students will learn the fundamental concepts and principles of the process of conducting applied research projects using existing data.	✓	✓	✓				
Individual meetings	Students will meet with their project supervisor on a weekly basis to monitor their research activities. During these meetings, they will discuss project-specific issues, receive feedback, and address any challenges that arise throughout the project.		✓	✓	✓			
Self-Directed Projects and Synthesized Submissions	Students will develop a hypothesis that they will test with a given dataset and write up and present their research findings		✓	✓	✓			Out of classroom

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 Assessment: 100%								
In Class progress report (participation and understanding)	✓	✓	✓	✓			20%	
Written manuscript		✓	✓	✓			60%	
Oral presentation		✓	✓	✓			20%	
Examination: ____% (duration: _____, if applicable)								
							100%	

5. Assessment Rubrics
(Grading of student achievements is based on student performance in assessment tasks/activities with the following 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. Classroom assessment	The assessment of the contents in both the theoretical and practical parts.	High	Significant	Moderate	Basic	Not reaching basic levels
2. Assignments-Written manuscript	The application of the techniques/tools learned/recommended in this course.	High	Significant	Moderate	Basic	Not reaching basic levels
3. Oral presentation	The demonstration of the principles of infectious disease epidemiology.	High	Significant	Moderate	Basic	Not reaching basic 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. Classroom assessment	The assessment of the contents in both the theoretical and practical parts.	Participation in >90% of the classes	Participation in 85-90% of the classes	Participation in 70-85% of the classes	Limited Participation in classes (<70%)
2. Assignments-Written manuscript	The ability to apply the techniques/tools learned/recommended in this course.	High	Significant	Basic to Moderate	Not even reaching marginal levels
3. Oral presentation	The demonstration of the principles of infectious disease epidemiology.	High	Significant	Basic to Moderate	Not even reaching marginal levels

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.)

     epidemiology; epidemiological study design, epidemiological analysis, infectious diseases, biostatistics;

     public health practice

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.	Zhang, Z, Feng, G, Xu, J, Zhang, Y, Li, J, Huang, J, Akinwunmi, B, Zhang, CJP, Ming WK (Corresponding author). The Impact of Public Health Events on COVID-19 Vaccine Hesitancy on Chinese Social Media: National Infoveillance Study. JMIR Public Health and Surveillance. 2021 Nov;7(11). e32936.
2.	Liu T, Tsang W, Huang F, Lau O, Chen Y, Sheng J, Guo Y, Akinwunmi B, Zhang CJ, Ming WK (Corresponding author). Patients' preferences for artificial intelligence (AI) Applications versus clinicians in disease diagnosis during SARS-CoV-2 pandemic in China: A discrete choice experiment. J Med Internet Res 2021;23(2):e22841
3.	He Z, Chin Y, Yu S, Huang J, Zhang CJ, Zhu K, Azarakhsh N, Sheng J, He Y, Jayavanth P, Liu Q, Akinwunmi B, Ming WK (Corresponding author).The Influence of Average Temperature and Relative Humidity on New Domestic Cases of COVID-19: Time-Series Analysis. JMIR Public Health and Surveillance. 2021
4.	Wu HL, Huang J, Zhang CJ, He Z, Ming WK (Corresponding author). Facemask shortage and the novel coronavirus disease (COVID-19) outbreak: Reflections on public health measures. Lancet EClinicalMedicine. 2020 Apr 3:100329.
5.	Liu T, Tsang W, Xie Y, Tian K, Huang F, Chen Y, Lau O, Feng G, Du J, Chu B, Shi T, Zhao J, Cai Y, Hu X, Akinwunmi B, Huang J, Zhang CJP, Ming WK (Corresponding author). Preference for artificial intelligence medicine before and during COVID-19 pandemic: Discrete choice experiment with propensity score matching. J Med Internet Res 2021;23(3), p.e26997
6.	He Z, Zhang CJP, Huang J, Zhai J, Zhou S, Chiu JWT, Tsang W, Akinwunmi BO, Ming WK (Corresponding author). A new era of epidemiology: Digital epidemiology for investigating the novel coronaviral disease (COVID-19) outbreak in China. Journal of Medical Internet Research 2020;22(9):e21685
7.	Wu H, Sun W, Huang X, Yu S, Wang H, Bi X, Sheng J, Chen S, Akinwunmi B, Zhang CJP, Ming WK (Corresponding author).Online Antenatal Care During The COVID-19 Pandemic: Opportunities and Challenges. Journal of Medical Internet Research. 2020; 22(7):e19916
8.	Liu Q, Zheng Z, Zheng J, Chen Q, Liu G, Chen S, Chu B, Zhu H, Akinwunmi B, Huang J, Zhang CJ, Ming WK (Corresponding author). Health Communication Through News Media During the Early Stage of the COVID-19 Outbreak in China: A Digital Topic Modeling Approach. Journal of Medical Internet Research. 2020;22(4):e19118. (IF: 5.034, Q1, TOP)
9.	Zhang CJ, Wu H, He Z, Chan NK, Huang J, Wang H, Yin Z, Akinwunmi B, Ming WK (Corresponding author). Psychobehavioral Responses, Post-Traumatic Stress and Depression in Pregnancy During the Early Phase of COVID-19 Outbreak. Psychiatric Research and Clinical Practice. 2020 Nov 24.

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

1.	Journal articles pertinent to individual projects