

PH6203: APPLIED PUBLIC HEALTH PROJECTS

Effective Term

Semester B 2024/25

Part I Course Overview

Course Title

Applied Public Health Projects

Subject Code

PH - Infectious Diseases and Public Health

Course Number

6203

Academic Unit

Infectious Diseases and Public Health (PH)

College/School

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

Course Duration

Two Semesters

Credit Units

0-9

Level

P5, P6 - Postgraduate Degree

Medium of Instruction

English

Medium of Assessment

English

Prerequisites

Nil

Precursors

Nil

Equivalent Courses

Nil

Exclusive Courses

Nil

Part II Course Details

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.

Course Intended Learning Outcomes (CILOs)

CILOs		Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	Demonstrate an ability to formulate an applied public health or one health hypothesis		x	x	
2	Clean, organize and perform analyses on public or animal health dataset(s) to test a hypothesis		x	x	x
3	Interpret results of statistical analyses		x	x	x
4	Write and present findings for research project		x	x	x

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 learn the fundamental concepts and principles of the process of conducting applied research projects using existing data.	1, 2, 3	
2	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.	2, 3, 4	
3	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	2, 3, 4	Out of classroom

Assessment Tasks / Activities (ATs)

ATs		CILO No.	Weighting (%)	Remarks (e.g. Parameter for GenAI use)
1	In Class progress report (participation and understanding)	1, 2, 3, 4	20	
2	Written manuscript	2, 3, 4	60	
3	Oral presentation	2, 3, 4	20	

Continuous Assessment (%)

100

Assessment Rubrics (AR)**Assessment Task**

Classroom assessment (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

Criterion

The assessment of the contents in both the theoretical and practical parts.

Excellent

(A+, A, A-) High

Good

(B+, B, B-) Significant

Fair

(C+, C, C-) Moderate

Marginal

(D) Basic

Failure

(F) Not reaching basic levels

Assessment Task

Assignments - Written manuscript (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

Criterion

The application of the techniques/tools learned/recommended in this course.

Excellent

(A+, A, A-) High

Good

(B+, B, B-) Significant

Fair

(C+, C, C-) Moderate

Marginal

(D) Basic

Failure

(F) Not reaching basic levels

Assessment Task

Oral presentation (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

Criterion

The demonstration of the principles of infectious disease epidemiology.

Excellent

(A+, A, A-) High

Good

(B+, B, B-) Significant

Fair

(C+, C, C-) Moderate

Marginal

(D) Basic

Failure

(F) Not reaching basic levels

Assessment Task

Classroom assessment (for students admitted from Semester A 2022/23 to Summer Term 2024)

Criterion

The assessment of the contents in both the theoretical and practical parts.

Excellent

(A+, A, A-) Participation in >90% of the classes

Good

(B+, B) Participation in 85-90% of the classes

Marginal

(B-, C+, C) Participation in 70-85 % of the classes

Failure

(F) Limited Participation in classes (<70%)

Assessment Task

Assignments - Written manuscript (for students admitted from Semester A 2022/23 to Summer Term 2024)

Criterion

The ability to apply the techniques/tools learned/recommended in this course.

Excellent

(A+, A, A-) High

Good

(B+, B) Significant

Marginal

(B-, C+, C) Basic to Moderate

Failure

(F) Not even reaching marginal levels

Assessment Task

Oral presentation (for students admitted from Semester A 2022/23 to Summer Term 2024)

Criterion

The demonstration of the principles of infectious disease epidemiology.

Excellent

(A+, A, A-) High

Good

(B+, B) Significant

Marginal

(B-, C+, C) Basic to Moderate

Failure

(F) Not even reaching marginal levels

Part III Other Information

Keyword Syllabus

epidemiology; epidemiological study design, epidemiological analysis, infectious diseases, biostatistics; public health practice

Reading List

Compulsory Readings

Title	
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 Infection Surveillance 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):e 19118. (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.

Additional Readings

Title	
1	Journal articles pertinent to individual projects