



Course Description:

This course covers the fundamental concepts of infectious disease epidemiology and current methods for infectious disease surveillance and control. Topics include epidemiologic triangle, transmissibility and severity of infectious diseases, outbreak investigations and responses, infectious disease surveillance, vaccination, molecular epidemiology, and epidemic modelling. Exemplary cases with focus on recent emerging infectious diseases (e.g., COVID-19, SARS, pandemic influenza, avian influenza, MERS) will be used to facilitate students' learning.

Pre-/Co-requisite: (i) Proficiency in CMED 6100 Introduction to biostatistics or equivalent (including the calculation of confidence intervals and the use of maximum likelihood method); and (ii) proficiency in basic programming skills in R or equivalent (including the use of loops, conditional statements, and functions). Fulfillment of such pre-requisites before or during the course is solely the responsibility of the enrolled students. Enrolled students are expected to reinforce their knowledge and skills in these pre-requisites as needed on their own via free online courses such as R Programming on Coursera (<https://www.coursera.org/learn/r-programming>).

Tutors/TAs: Dr Horace Choi/ Mr Zhenyu Wang/ Ms Chrissy Pang/ Ms Carmen Xu

Term 2 (Wednesday)

Contact person: Dr Horace Choi

Date	Time	Lecture Topic	Lecturer	Venue
14 Jan 2026	6:30–9:30 pm	1. Introduction	Prof J Wu	TBC
21 Jan 2026	6:30–9:30 pm	2. Incubation period and severity	Prof J Wu	TBC
		Tutorial or Q&A		
28 Jan 2026	6:30–9:30 pm	3. Disease transmission	Prof J Wu	TBC
		Tutorial or Q&A		
04 Feb 2026	6:30–9:30 pm	4. Vaccination	Prof J Wu	TBC
		Tutorial or Q&A		
11 Feb 2026	6:30–9:30 pm	5. Disease surveillance	Prof K Leung	TBC
		Tutorial or Q&A		
04 Mar 2026	6:30–9:30 pm	6. Evaluating evidence	Prof K Leung	TBC
		Tutorial or Q&A		
11 Mar 2026	6:30–9:30 pm	7. Infectious disease modeling	Prof K Leung	TBC
		Tutorial or Q&A		
18 Mar 2026	6:30–9:30 pm	8. Sexually transmitted infections	Prof K Leung	TBC
		Tutorial or Q&A		
25 Mar 2026	6:30–9:30 pm	9. Vaccine safety and confidence	Prof J Wu	TBC
		Tutorial or Q&A		
01 Apr 2026	6:30–9:30 pm	10. Molecular epidemiology	Prof T Lam	TBC
		Tutorial or Q&A		
15 Apr 2026	6:30–9:30 pm	Final Test	-	TBC

Course Assessment:

Coursework: 70%
 Final Test: 30%

Recommended Textbooks:

Giesecke J. Modern Infectious Disease Epidemiology. Edward Arnold; 2001. ISBN: 0340764236.

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