



Course Description:

This course builds on the introductory course in epidemiology (CMED6200). Causal inference is undoubtedly one of the most important epidemiological concepts in current epidemiological and population health research. Epidemiological research which focuses on 'risk factor' analysis though important does not always lead public health practitioners and scientists to identify modifiable factors relevant for changing health outcomes. The application of causal inference thinking in epidemiological study design and the use of more advanced data analysis helps ameliorate this problem.

Prerequisite: CMED 6200 Introduction to epidemiology

Term 2 (Thursday)

TA(s)/ Tutor(s): Ms Xia Yuanqing/ Dr Jacky Mo

Date	Time	Lecture Topic	Lecturer	Venue
15 Jan 2026	6:30-9:00pm (HKT)/ 11:30am-1:00pm (UKT)	1. Study designs in epidemiology and their purpose	Dr M Schooling	Online
22 Jan 2026	6:30-9:00pm (HKT)/ 11:30am-1:00pm (UKT)	2. Review of measures of occurrence and associations used in epidemiology	Dr M Schooling	Online
29 Jan 2026	6:30-9:00pm (HKT)/ 11:30am-1:00pm (UKT)	3. Confounding in epidemiologic studies	Dr M Schooling	Online
05 Feb 2026	6:30-9:00pm (HKT)/ 11:30am-1:00pm (UKT)	4. Bias in epidemiologic studies	Dr M Schooling	Online
12 Feb 2026	6:30-9:00pm (HKT)/ 11:30am-1:00pm (UKT)	5. The role of Bradford Hill viewpoints in causal inference	Dr M Schooling	Online
05 Mar 2026	6:30-9:00pm (HKT)/ 11:30am-1:00pm (UKT)	6. Systematic reviews and meta analysis	Dr M Schooling	Online
12 Mar 2026	6:30-9:00pm (HKT)/ 11:30am-1:00pm (UKT)	7. Natural experiments and Mendelian randomization analysis	Dr M Schooling	Online
19 Mar 2026	6:30-9:00pm (HKT)/ 11:30am-1:00pm (UKT)	8. Effect modification and mediation analysis	Dr M Schooling	Online
26 Mar 2026	6:30-9:00pm (HKT)/ 11:30am-1:00pm (UKT)	9. The role of observational studies in causal inference	Dr M Schooling	Online
02 Apr 2026	6:30-9:00pm (HKT)/ 11:30am-1:00pm (UKT)	10. Methodological issues to consider when designing an epidemiologic study	Dr M Schooling	Online
09 Apr 2026	6:30-9:00pm (HKT)/ 11:30am-1:00pm (UKT)	11. Ethical issues to consider when designing an epidemiologic study	Dr M Schooling	Online
16 Apr 2026	6:30-9:00pm (HKT)/ 11:30am-1:00pm (UKT)	12. Presentation and interpretation of results from epidemiologic research	Dr M Schooling	Online
23 Apr 2026	6:30-8:30pm (HKT)	Examination	-	TBC

Course Assessment:

1. Practical: 20%
2. Written assignment: 30%
3. Final test: 50%

Recommended Textbooks:

1. TL Lash, TJ VanderWeele, S Haneuse, KJ Rothman, Modern Epidemiology, 4th edition, Wolters Kluwer, 2021.
2. Pearl J, Mackenzie D, The Book of Why: The New Science of Cause and Effect", Basic Books, 2020

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