



**MMPH6157 Intermediate epidemiology**

<b>Course Coordinator:</b>	Dr M Schooling
<b>Delivery Mode of Lectures:</b>	Face to face
<b>Venue:</b>	TBC
<b>Final Examination:</b>	Saturday 27 Jan 2024 (2:30 – 4:30 pm), Venue: TBC

**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

**Winter Term (Concentrated:3 -10 Jan 2024)**

**TA(s)/ Tutor(s): Ms Liang Ying/ Mr Jacky Mo?**

	<u>Date</u>	<u>Time</u>	<u>Lecture Topic</u>	<u>Lecturer</u>	<u>Venue</u>
1	02 Jan 2024 (Tue)	2:00 – 5:00 pm	1. Study designs in epidemiology and their purpose	Dr M Schooling	TBC
		6:00 –8:00 pm	2. Review of measures of occurrence and associations used in epidemiology		
2	03 Jan 2024 (Wed)	2:00 – 5:00 pm	3. Confounding in epidemiologic studies	Dr M Schooling	TBC
		6:00 –8:00 pm	4. Bias in epidemiologic studies		
3	04 Jan 2024 (Thur)	2:00 – 5:00 pm	5. The role of Bradford Hill viewpoints in causal inference	Dr M Schooling	TBC
		6:00 –8:00 pm	6. Systematic reviews and meta analysis		
4	05 Jan 2024 (Fri)	2:00 – 5:00 pm	7. Natural experiments and Mendelian randomization analysis	Dr M Schooling	TBC
		6:00 –8:00 pm	8. Effect modification and mediation analysis		
5	08 Jan 2024 (Mon)	2:00 – 5:00 pm	9. The role of observational studies in causal inference	Dr M Schooling	TBC
		6:00 –8:00 pm	10. Methodological issues to consider when designing an		



			epidemiologic study		
6	09 Jan 2024 (Tue)	2:00 – 5:00 pm	11. Ethical issues to consider when designing an epidemiologic study	Dr M Schooling	TBC
		6:00 –8:00 pm	12. Presentation and interpretation of results from epidemiologic research		
7	27 Jan 2024 (Sat)	2:30 – 4:30 pm	Examination	-	TBC

**Course**

**Assessment:**

**Recommended Textbooks:**

1. Practical: 20%
  2. Written assignment: 30%
  3. Final test: 50%
1. Szklo M, Nieto FJ. Epidemiology: Beyond the Basics. 2nd ed. Sudbury, MA: Jones and Bartlett Publishers, LLC; 2007.
  2. Rothman KJ et al. Modern Epidemiology. 3rd Ed. Philadelphia: Lippincott Williams & Wilkins, 2008, ISBN 0781755646.
  3. Pearl J, Glymour M, Jewell N, Causal Inference in Statistics – A Primer” Wiley, 2016

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