

Course Title/Code: Intermediate epidemiology (MMPH6157)

Department: School of Public Health

Objective:

1. To review the basic concepts in epidemiology such as study designs and measures
2. To differentiate different threats to validity in epidemiologic studies
3. To introduce students more advanced study designs which can improve causal inferences
4. To evaluate the role of Bradford Hill viewpoint and traditional observational studies in causal inference
5. To evaluate methodological and ethical issues when designing an epidemiologic study
6. To improve students' presentation and interpretation of the results from epidemiologic studies

Content:

Topics include:

1. Study designs in epidemiology and their purpose
2. Review of measures of occurrence and associations used in epidemiology
3. Confounding in epidemiologic studies
4. Bias in epidemiologic studies
5. The role of Bradford Hill viewpoints in causal inference
6. Systematic reviews and meta analysis
7. Natural experiments and Mendelian randomization analysis
8. Effect modification and mediation analysis
9. The role of observational studies in causal inference
10. Methodological issues to consider when designing an epidemiologic study
11. Ethical issues to consider when designing an epidemiologic study
12. Presentation and interpretation of results from epidemiologic research

Prerequisite: MMPH6003 Introduction to epidemiology

Duration: 1 semester; concentrated course; 30 contact hours

Coursework /

Examination ratio:

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

**Examination method/
duration:**

Written examination / 2 hours

Remarks:

Also offered to RPg from other Faculties at HKU. Prior approval from the Department of Community Medicine must be sought.