Improving Health Worldwide

Advanced Course in Epidemiological Analysis

LONDON SCHOOL of HYGIENE &TROPICAL MEDICINE

Short Course
8 - 19 September 2025

Background

Statistical methodology for the design and analysis of epidemiological studies is a fast-changing field.

Participants will be given a thorough grounding both in classical methods of analysis and in the more advanced regression techniques, and will gain practical experience of data analysis using the computer package Stata. Various aspects of study design will also be considered.

Who should attend?

The course is taught in Stata and we require students to have experience of statistical analysis using Stata (for example, linear regression). The course is designed primarily for those working, or planning to work, on epidemiological research projects.

The emphasis of this course will be on developing an understanding of the underlying assumptions and principles, on the practical application of the techniques and on the correct interpretation of the results, rather than on the mathematical derivation of the methods. The methods will be illustrated through studies of the epidemiology of both infectious and non-infectious diseases, conducted in both developed and in developing countries.

Teaching methods

This hybrid short course may be studied online or in-person for two weeks. Participants should expect to spend approximately 5-6 hours a day on the course.

Course content

The course makes use of the Stata package throughout. The topics to be covered will include:

- Measures of disease frequency and exposure effects
- Confounding and interaction
- Classical methods of analysis for cohort studies
- Classical methods of analysis for case-control studies
- Unconditional logistic regression
- Poisson regression for cohort studies
- Survival analysis and proportional hazards regression
- Practical issues in study design and analysis
- Conditional logistic regression for case-control studies
- Clustering of data in epidemiological studies
- Strategies of analysis

Key information

Course organisers:
Daniel Grint
Clare Gilham

Fees for 2025:
£2,480

Contact email:
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Find out more and apply:
lshtm.ac.uk/study/courses/short-courses/epi-analysis