

Life Course Epidemiology and Public Health

Facilitators

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Description

Population health is shaped by exposures that accumulate across the whole life course — social, environmental, behavioural and biological — from conception to old age. Life course epidemiology (LCE) asks how exposures at different life stages, and across successive birth cohorts, causally shape long-term health, and it uses longitudinal studies to find out. For public health the payoff is practical: identifying the windows of opportunity when intervention matters most, the exposures worth targeting, and the strategies likely to work.

This course introduces both the life course theories — critical and sensitive periods, accumulation, chains of risk — and the contemporary causal-inference tools used to evaluate them from observational data. You will learn to make confounding assumptions explicit, to recognise when exposures that change over time demand methods beyond standard regression, and to read life course studies critically, judging what their designs and analyses can and cannot support. Across the three days you build and present a life course study of your own, from research question to analytic strategy, with feedback from the teaching team.

The course suits PhD students and researchers in epidemiology, public health, and the health and social sciences. No prior background in causal inference is assumed; some familiarity with regression is helpful.

Objectives

- Explain the life course approach and articulate its relevance for prevention and public-health policy.
- Distinguish the main life course models (critical/sensitive periods, accumulation, chains of risk) and appraise the assumptions each rests on.
- Formulate a life course research question and identify longitudinal data and study designs suited to answering it.
- Represent confounding assumptions in a DAG and recognise when time-varying exposures require methods beyond standard regression, such as g-methods and marginal structural models.
- Critically appraise longitudinal life course studies — distinguishing descriptive from causal research questions and claims, judging sources of bias, and drawing out the public-health implications.
- Develop and present a life course study proposal of your own.

Dates

22 – 24 February 2027

Eligibility

Open to SSPH+ PhD students, and senior researchers in the public health field. Max number of participants: 20

Course Structure

This course includes lectures as well as many practical examples and exercises. The first two days will focus on life course epidemiologic concepts and methods, while the third day will provide two examples of public health topics where a life course approach lead to improved understanding of disease determinants and potential interventions. Each day participants will work in groups and share presentations of their work on the third day.

Assessment

Active participation in the exercises and short presentations.

Credits

1 ECTS

Preparation Work: 10 h, Contact: 18 h

(1 ECTS corresponds to appr. 25-30 hours workload)

Location

University of Fribourg, tbd

Course Fees

	1 ECTS
SSPH+ IGC PhD and MD Students	30 CHF
Postdocs from SSPH+ partner institutes with a SSPH+ Faculty Member as line manager	30 CHF
External PhD students, external MD Students, postdocs from SSPH+ partner institutes without a SSPH+ Faculty Member as line manager and Swiss Public Health Doctors in training	300 CHF
Others	800 CHF

Registration

<https://www.conftool.com/ssph-phd-courses2027/>

Deadline for Registration

22 January 2027