

Causal Inference for Population Health Sciences

Facilitators

- **PD Dr. Tracy Glass, PhD**
Swiss Tropical and Public Health Institute & University of Basel

Guest lecturers:

- **Prof. Dr. Martin Huber, PhD**
Chair of Applied Econometrics and Policy Evaluation, University of Fribourg
- **PD Dr. Cristian Carmeli, PhD**
Population Health Laboratory (PopHealthLab), University of Fribourg

Description

This 4.5-day in-person course, comprising a mix of lectures and hands-on practical sessions, is aimed at students who want to gain a fundamental understanding of what causal inference is and how it might apply to their own research.

The course will cover defining the research question in a causal framework, creating a direct acyclic graph, identifying valid covariate adjustment sets, and selecting a method for estimating the causal contrasts. We will guide the learning through lectures followed by practical sessions applying the knowledge gained.

Objectives

Students will:

- understand the setting for which causal inference is warranted and the framework for potential outcomes
- understand the difference between causal estimands, estimators, and estimates
- understand how to generate and interpret a directed acyclic graph
- understand hypotheses underlying the identification of causal effects,
- identify the most suitable methods to answer different research questions,
- run basic analyses with the methods presented

Dates

27 September – 1 October 2027

Eligibility

Open to PhD students of the SSPH+ Inter-university Graduate Campus; other students and external participants are welcome to apply.

Prerequisites

Prerequisites for the course are knowledge in statistics, especially statistical inference and regression modeling with some experience in implementing statistical analysis.

Course Structure

4.5 days with time split between lectures and practical sessions.

Assessment

Class participation and practicals with presentations.

Credits

2 ECTS

Preliminary Work: 10 h; Contact time: 36 h; In-course work: 5-10 h

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

Location

Swiss TPH, Kreuzstrasse 2, 4123 Allschwil, Switzerland, room tba

Course Fees

IGC course fees	2 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	600 CHF
Others	1'600 CHF

Registration

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

Deadline for registration

27 August 2027