

# Causal inference for population health sciences

## Facilitator

**PD Dr. Tracy Glass, PhD**

Swiss Tropical and Public Health Institute & University of Basel

## 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

**22 – 26 September 2025**

## 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

<b>IGC course fees</b>	<b>2 ECTS</b>
SSPH+ IGC PhD Students	30 CHF
SSPH+ IGC MD Students	30 CHF
External PhD students, external MD Students and Swiss Public Health Doctors in training	600 CHF
Others	1'600 CHF

**Registration** <https://www.conftool.com/ssph-phd-courses2025/>

**Deadline for registration** **22 August 2025**