

# Systematic Reviews and Evidence Synthesis

## Facilitators

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## Description

A systematic review (SR) is a review of the scientific literature on a specific research question that adopts explicit and standardized methods to minimize potential biases and thus provide more reliable findings to support decision-making and to guide future research. It is a key element for evidence-based medicine and public health (EBM&PH). Our course is designed for PhD students and researchers who want to know how SRs can be used within healthcare and public health to inform decisions making within an EBM&PH framework.

The participants will learn how to conduct a SR and synthesize evidence (meta-analysis; MA) and the process from the initial research question to best practice reporting results. They will apply different statistical methods and tools to conduct SR and MA (risk of bias tool to assess the methodological quality of studies; meta-analytic methods to quantitatively summarize evidence; GRADE framework to assess the confidence in the MA results). The participants will be trained in appraising SRs, with examples taken from experimental and observational research.

## Objectives

To know the principles of EBM&PH and how to conduct a SR and MA.

In particular, able to:

- Understand what is EBM&PH and why it matters for healthcare provision and public health decision making
- Recognize the different types of reviews (systematic, narrative, scoping, ...) and know their strengths and limitations for decision making

- Describe the key steps in undertaking a SR and evidence synthesis, including the development of a protocol
- Formulate a clear research question that can be addressed by a SR
- Identifying the relevant literature
- Appraise the methodological quality of studies included in a SR
- Conduct basic MA and interpret the results
- Assess the confidence in the evidence from MA using the GRADE framework

**Dates** 10 – 13 February 2025

**Eligibility** SSPH+ PhD students. External participants are welcome to apply.

**Course Structure** Lectures and group work

**Assessment** In-class assignments and presentations

**Credits** 2 ECTS

Preliminary Work: 10h; Contact time: 30h; Assignment: 10h

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

**Location** University of Fribourg, room TBA

**Course Fees**

IGC course fees	2 ECTS
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** 10 January 2025