

# PUBLIC \* HEALTH

## Seminars & Courses



Scuola di Specializzazione  
IGIENE & MEDICINA PREVENTIVA  
Direttore: Prof.ssa Anna Odone  
UNIVERSITÀ DI PAVIA



**DIN**  
**One Health**



### COURSE

## ADVANCED COURSE ON SYSTEMATIC REVIEWS AND META-ANALYSIS: METHODS AND PRACTICE

#### COURSE OBJECTIVE & OVERVIEW:

Aim of the course is to provide the foundational theoretical knowledge and practical methodological skills for **planning and conducting systematic reviews and meta-analyses**. It includes **lectures and practical sessions** on all phases of a systematic review and meta-analysis: defining the research question, drafting the protocol, systematic searching of sources, applying inclusion and exclusion criteria, extracting data, assessing the quality of primary studies, performing qualitative synthesis and meta-analysis, and reporting. Throughout the course, students will have the **chance to develop their own research project** and will have access to the resources of the University of Pavia, statistical software for meta-analyses and bibliography management.

#### STUDENTS' TARGET:

The course is targeted to PhD students belonging to the **Life Science research area**.

#### DATES & FORMAT:

The 2026 course edition will be **distance learning**, structured in 5 sessions (one per week, see the programme below)

#### LANGUAGE:

**The course will be taught in Italian.**

#### PROGRAMME & CONTENT:

- **Session 1**  
9 April 2026  
h 14.00 – 18.00  
**Lecture:** Introduction to systematic reviews and meta-analyses. The PRISMA guidelines  
**Lecture:** Basics of epidemiology: study designs and measures
- **Session 2**  
16 April 2026  
h 14.00 – 18.00  
**Workshop:** Crafting a research question using the PICO(s) model. Initial steps in developing a systematic review protocol on Prospero  
**Workshop:** Search strategy development for systematic retrieval of sources. Practical application of search strings and introduction to reference management tools
- **Session 3**  
23 April 2026  
h 14.00 – 18.00  
**Lecture:** Selecting studies and applying inclusion/exclusion criteria. Data extraction and data synthesis techniques: qualitative, meta-analysis and meta-regression  
**Workshop:** Qualitative and quantitative synthesis: hands-on session with Rayyan, Prometa and RevMan for screening and data management
- **Session 4**  
30 April 2026  
h 14.00 – 18.00  
**Lecture:** In-depth review of PRISMA steps. Quality assessment and tools for quality appraisal  
**Workshop:** PRISMA checklist compliance and practical exercises on risk of bias assessment
- **Session 5**  
7 May 2026  
h 9.00 – 13.00  
**Lecture:** New frontiers in systematic reviews: umbrella reviews, multiple treatments meta-analysis, network meta-analysis; the role of AI in systematic reviews  
**Workshop:** Practical session on developing a draft for a systematic review manuscript

#### COURSE DIRECTOR & FACULTY:

Prof Anna Odone, School of Public Health, University of Pavia  
Prof Maddalena Gaeta, School of Public Health, University of Pavia  
Dr Paola Bertuccio, School of Public Health, University of Pavia  
Dr Giacomo Pietro Vigezzi, School of Public Health, University of Pavia  
Dr Giansanto Mosconi, School of Public Health, University of Pavia  
Teaching assistants: Dr Chiara Barbati, Dr Luca Viviani

#### REGISTRATION:

Registration will be possible on the form provided by the PhD Office. The deadline for registration is **March 16, 2026**.

#### INFORMATION:

For information, please contact [phd.onehealth@unipv.it](mailto:phd.onehealth@unipv.it).