

Epi-on-the-Island
Introduction to Systematic Review and Meta-Analysis
13-17 July 2026

Tentative Schedule

(all sessions in hybrid mode: AVC Lecture C and virtual participation by Zoom)

Day	Time	Lecture	Laboratory
Mon	8:30 - 9:00	(Jan, Ian) Welcome & Introduction	
	9:00 - 10:00	(Jan) Overview of systematic reviews and scoping reviews	
	10:30 - 12:00	(Jan) Formulating review questions	(Jan) Practical exercise on formulating review questions
	1:00 - 2:30	(Jan) Question to eligibility criteria to search terms.	(Jan) Practical exercise on creating search terms
	3:00 - 4:30	(Jan) Searching the literature	(Jan) Using search terms to search the literature
	4:30 - 6:00	Individual discussions of participants' projects	
Tues	8:30 – 9:30		(Jan) Discussion of individual project questions and eligibility criteria
	9:30 – 10:00	(Jan) Discussion of software for conducting reviews	
	10:30 - 12:00	(Jan) Selecting relevant studies. To use AI or not	(Jan) Practical exercise on selecting relevant studies
	1:00 – 1:30	(Jan) Scoping reviews	
	1:30 - 2:30	(Jan) Risk of Bias - trials	(Jan) Practical examples of RofB for trials
	3:00 - 4:30	(Jan) Risk of Bias – observational studies	(Jan) Practical examples of RofB for observational studies
	4:30 - 6:00	Assisting participants to get started on their projects Intro to meta-analysis in Stata for new users	

Day	Time	Lecture	Laboratory
Wed	8:30 - 10:00	(Ian) Extracting data, Summary Estimates, Heterogeneity	Exc – Computing summary estimates
	10:30 - 12:00	(Ian) Evaluating heterogeneity	Exc – Evaluating heterogeneity
	1:00 - 2:30	(Ian) Influential studies, cumulative meta-analysis, publication bias	Exc – influential studies, cumulative meta-analysis
	3:00 - 4:30	(Ian and/or Jan) Certainty of findings, GRADE	Exc – Publication bias
	4:30 - 6:00	Participants free to work on their own	
Thur	8:30 - 10:00	(Javier) AI-powered support tools used for SR (Covidence, Rayyan, Robotreviewer)	
	10:30 - 12:00		Exc – AI support tools
	1:00 - 2:30	(Henrik) Introductions to meta-analysis for diagnostic tests and network meta-analysis	
	3:00 - 5:00		Exc – Meta-analysis for diagnostic tests Exc – Network meta-analysis
	Evening	Course dinner	
Fri	8:30 - 10:00		Participants work on their own projects
	10:30 - 12:00		Participants work on their own projects
	1:00 - 2:30	Presentations by participants	
	3:00 - 4:30	Presentations by participants, Course wrap-up	
Follow-up		To be planned	

Course Information

Text:

Chapter 28 of *Veterinary Epidemiologic Research*, 2nd ed. is recommended as background reading and for a brief introduction of concepts. When relevant, references will be made to documentation published by the Cochrane Collaboration (<http://www.cochrane.org>). Details will also be provided in lecture notes, which will be made available at cloud and web repositories, together with additional material for the course.

Software

The primary software used in the course will be Stata and R. For Stata, a temporary licence will be made available and those wishing to install the program can do so. Participants wishing to use R should have the program installed before coming to the course. We recommend Stata versions 17-19 and R versions 4.1.0 or later (preferably with the lme4 library installed).

Course Preparation

In order to get the maximum value out of the course, we encourage participants to bring their own systematic review project (or several projects) to the course. Projects can range from a well-developed idea for a systematic review prior to start of the data collection to a fully compiled dataset following data collection. There will be time during the course to work on your own project(s), and we will endeavour to have lots of help available in the lab sessions to expedite this process. For projects without a completed data collection, work on the quantitative components of the course (such as meta-analysis) can be based on pre-collected data provided as part of the course material. The planned follow-up session after the course will provide an opportunity to discuss the progress made after the course on collecting (and possibly analysing) data for your project. For each of the projects you bring to the course, the following actions are recommended:

1. **Describe your research question.** Provide a specific description of the research question your review is intended to answer. The description can be formal using frameworks for formulating review questions or informal in plain language. Include a justification for the scientific and practical interest in the question proposed for study.

2. **Prepare your data (if you are bringing some).** Irrespective of whether your data are complete or preliminary, include information about how the data were collected. Organize your data following the principle that rows should correspond to "studies" and columns should correspond to variables. In this notation, "study" means the lowest level to which your data can be aggregated. Note that a single data source (such as a publication) can include multiple "studies" if the publication include information from multiple groups that are desired to be distinguished. If you instead have individual (e.g., patient) data within each "study", these data will often need to be synthesized per "study", and methods covered within the course will address how to do that (so it is not crucial that you do this in beforehand). Data can be held in different software formats, and usually transfer between formats is a relatively simple process that we can help with (as needed).

If you are happy to share a written description or summary of your project, bring a tentative version of such a description with you to the course (it can be updated, if needed).