

BAYESIAN META-ANALYSIS IN STATA

GENERAL DESCRIPTION

In systematic literature reviews and meta-analysis, researchers frequently encounter difficulties in the evidence base that prevent the usual estimators from being used. For example, there may be reason to believe that results reported by some studies are biased. Other studies might not have reported the statistics required for traditional meta-analysis. Bayesian models for meta-analysis can accommodate these and other problems in a flexible modelling methodology. They also produce results in a probabilistic form that has been shown to support decision makers.

In this course, participants will be introduced to Bayesian methods using the sampling algorithms in *Stata*'s flexible **bayesmh** command, no previous experience of Bayes is therefore required. We will show how to re-conceptualise meta-analysis from a weighted average estimator to a probabilistic model, before teaching the code needed for basic common effect and random effect meta-analyses. We will then progress to more sophisticated models for network meta-analysis (multiple intervention choices) and unreported statistics.

At the end of the course, participants will be able to autonomously implement (with the help of the *Stata* routine templates specifically developed for the course) the appropriate methods, given both the nature of their data and the analysis in hand, within their own research.

TARGET AUDIENCE

The course is of particular interest to researchers and professional working in Biostatistics, Business Administration, Economics, Education, Management, Marketing, Psychology, Public Health and Social Sciences. Due to its introductory nature, it is however, also accessible to individuals, regardless of their respective disciplines or fields, who need to acquire the requisite toolset to apply Bayesian Meta-Analysis to their own data. During the course, theoretical concepts are reinforced by applied examples, in which the course tutor discusses current research issues, highlighting potential pitfalls and the advantages of individual techniques.

PREREQUISITES

A working knowledge of the basic principles of biostatistics and epidemiology, as well as a basic knowledge of the statistical software *Stata*. Knowledge of the arguments treated in our [Meta-Analysis](#) course will significantly facilitate participation in this course.

PROGRAM

SESSION I

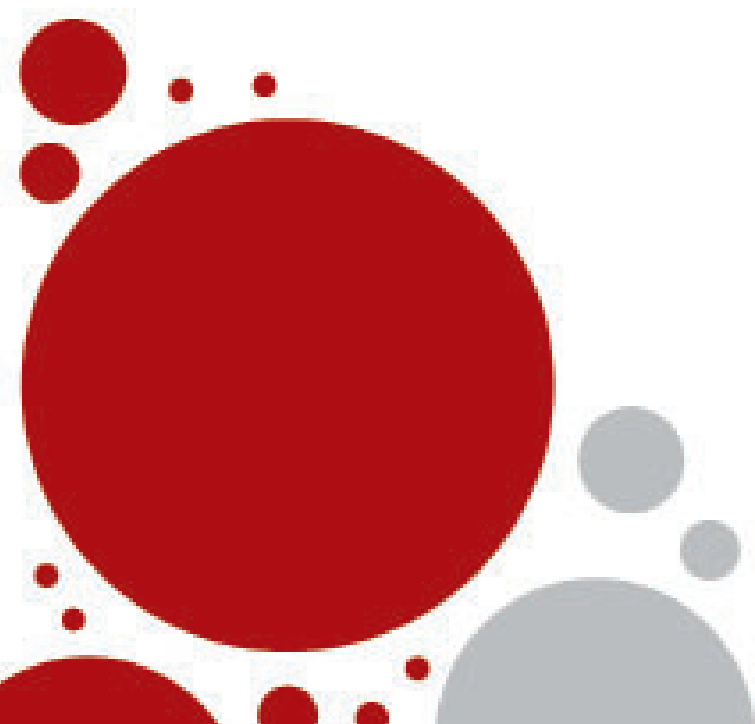
1. A primer on Bayesian methods and the **bayesmh** command in *Stata*
2. Meta-analysis as a model using likelihood (and prior)
3. Basic models using *Stata*

SESSION II

1. Arm-based and network meta-analysis
2. Dealing with biases and unreported statistics

USEFUL REFERENCES

Grant, R. & Di Tanna G. (2025) Bayesian Meta-Analysis: a practical introduction. Chapman and Hall/CRC.



DATE AND LOCATION

The 2026 edition of this training course will be offered online on a part-time basis on the 18th-19th of June from 10:00 am to 1:30 pm CEST.

REGISTRATION FEES

Full-time Students*: € 390.00

Ph.D. Students: € 500.00

Academic: € 555.00

Commercial: € 740.00

*To be eligible for student prices, participants must provide proof of their **full-time student** status for the current academic year. Our standard policy is to provide all full-time students, be they Undergraduates or Masters students, access to student participation rates. Part-time master and doctoral students who are also currently employed will however, be allocated academic status.

Fees are subject to VAT (applied at the current Italian rate of 22%). Under current EU fiscal regulations, VAT will not however be applied to companies, Institutions or Universities providing a valid tax registration number.

The number of participants is limited to 8. Places will be allocated on a first come, first serve basis. The course will be officially confirmed, when at least 5 individuals are enrolled.

Course fees cover: i) teaching materials – copies of lecture slides, databases and [Stata](#) programs specifically developed for the course; ii) a temporary licence of [StataNow™](#) valid for 30 days from the day before the course commences.

Individuals interested in attending this course must return their completed [registration forms](#) by [e-mail](#) to TStat by the 8th of June 2026.



CONTACT INFORMATION:

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