



WAGENINGEN
UNIVERSITY & RESEARCH

Course

Effective Analysis of Big Data in R

Health and life science nowadays produce large and complex data sets on a routine basis – small wonder that Big Data is a hot topic. Handling big data in R, one of the most popular modern data elaboration platforms, can sometimes be a challenge, even for experienced R users. Through hands-on computer labs and lectures you will get a thorough basis for achieving this task.

Target audience

This course targets professionals working in health and life sciences (e.g., food industry, breeding and seed business, biotech and agro chemical industry).

Presumed knowledge: we aim at individuals with a strong basic understanding of R and experienced in programming in R. If you are unsure whether your R skill level is sufficient to attend this course, please contact Wageningen Academy.

Results for you

The course provides background in the possibilities R provides for handling big data, both in terms of execution speed and memory management. This includes good programming practices particular to R, but also more general background on high-performance computing, applied to the R ecosystem. Special attention will be devoted to reproducible research in R. After the course, participants are able to apply the techniques discussed in the course in their own research, and use this as a basis on which to build and include future developments in the R world.

Location:	Wageningen Campus
Dates:	4 and 5 November 2021
Course leaders:	Dr. Ron Wehrens, Biometris Dr. Sven Warris, Bioscience at WUR
Organized by:	Wageningen Academy

Set-up and topics

The course is set up in four blocks, and is presented in an attractive mix of lectures and hands-on computer practicals. This set-up offers participants an ideal opportunity to learn how to:

- Find bottlenecks in terms of execution speed and memory usage
- Perform calculations efficiently (as opposed to easily)
- Use R in a way that leads to reproducible research
- Include high performance computing (HPC) in R analyses

The teachers are experts in the field of R and Big Data in health and life-science research, offering interactive tuition with Q&A sessions and the opportunity to discuss case studies submitted by the participants.



Practical information

Price

The price for this course is € 1.295,- per person and covers tuition, course materials, one dinner, lunches and refreshments. Hotel accommodation is not included in the course fee. Computers for the practicals will be available on site.

Group size

Between 20 and 30 participants.

Certificate

Based on your attendance you will receive a certificate after the programme is finished.

Registration

Registration is possible via www.wur.eu/academy
The registration deadline is 10 October 2021, or until the maximum number of participants is reached.

Programme

Thursday 4 November 2021

- Welcome and registration
- Introduction to the course and the participants
Sven Warris, Bioscience & Ron Wehrens, Biometris
- Reproducible research
Sven Warris
- Lunch break
- Profiling and efficient R programming
Ron Wehrens
- Questions & Answers
Sven Warris & Ron Wehrens
- Informal dinner

Friday 5 November 2021

- R memory management and Big Data
Ron Wehrens
- R and databases
Sven Warris
- Questions & Answers
Sven Warris & Dr Ron Wehrens
- Lunch break
- HPC in R
Sven Warris
- Big data analyses: a machine learning example
Sven Warris
- Evaluation and certificates

All presentations and documentation will be in English.



Wageningen Academy

We offer professional education based on demand of the Food & Agri sector in relation to the expertise of Wageningen University & Research.

Contact

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