



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 group

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

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.

Date 3 & 4 November 2022

Location Wageningen

Course leader Dr. Maikel Verouden, Biometris
Dr. Sven Warris, Bioscience

Outline 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 attractive interactive tuition.



Programme

Day 1: Thursday 3 November 2022

- **Welcome and registration**
- **Introduction to the course and the participants**
- **The Big Data issue**
Maikel Verouden
- **Profiling and efficient R programming**
Maikel Verouden
- **Lunch break**
- **Profiling and efficient R programming (contd.)**
Maikel Verouden
- **Reproducible research**
Sven Warris
- **Questions & Answers**
- **Informal dinner**

Day 2: Friday 4 November 2022

- **R memory management and big data**
Maikel Verouden
- **HPC in R**
Sven Warris
- **Lunch break**
- **Big data analyses: a case of machine learning**
Sven Warris
- **Questions & Answers**
- **Evaluation, certificates and closing**

All presentations and documentation will be in English.

Practical information



The course fee is € 1,295.- per person and covers tuition, course materials, one diner, lunches and refreshments. Hotel accommodation is not included in the course fee.

Participants need to bring their own device for computer practicals.



Between 15 and 30 participants.



After attending this course a personalised certificate is issued.

Registration

Registration is possible until 11 October 2022, or if the maximum number of participants is reached. Register via www.wur.eu/academy.

[Register](#)

Wageningen Academy

We develop and organise courses for professionals, based on Wageningen University & Research expertise.

Contact

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tomorrow's business