LINKÖPINGS UNIVERSITET

R Programming for Analytical Environmental Chemistry, 6.0 credits

R Programmering för analytisk miljökemi, 6.0 hp

Third-cycle education course

6FIFM90

Department of Physics, Chemistry and Biology

Valid from: First half-year 2024

Approved by   **Approved**

Registration number

Entry requirements

Environmental chemistry, analytical organic chemistry

Learning outcomes

By the end of the course, the student should be able to:

- Understand the programming principles and data structures of the R language,
- Apply and write functions and R packages to analyze data from various sources,
- Use R to analyze and interpret data from environmental chemical analysis,
- Use R to generate appropriate visualization for chemical analysis data,
- Document the data analysis code and results in an appropriate format.

Contents

The course is aimed for PhD students with knowledge of environmental chemistry and analytical chemistry. The R programming language will be applied to analyze environmental chemistry data as well as visualizing and reporting outputs.

Grading

Two-grade scale

Course literature

R for Data Science (2e). Hadley Wickham. Freely available at:
https://r4ds.hadley.nz/
R Graphics Cookbook, 2nd edition. Winston Chang. Freely available at: htps://r-graphics.org/

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