Introduction to the Statistical Software R

Facilitator

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Description

This course is a practical introduction to R, a free open-source software environment for statistical computing. Besides an introduction into the software, the following topics will be covered: data import and export, data manipulation, statistical analysis, graphical representation and advanced programming concepts as conditional branching and loops. Students should bring their own laptop for the practical work.

In contrast to other statistical software solutions, R is designed around a true computer language. This has the implication that R is characterized by an enormous flexibility that enables the user to perform sophisticated statistical procedures or simulations. R might be less intuitive to scientists without prior programming skills. However, there are some tools available to make the user's life easier as graphical user interfaces and editors with syntax highlighting.

Participants should have basic statistical knowledge. Programming skills are not required.

The first 2 days are mainly lectures and practical courses. The 3rd day is a workshop and participants are divided into groups to apply the new knowledge to their own data. Note: the 3rd day is optional. First year PhD students or other participants without own data can alternatively complete a homework assignment to get the credit points.

Objectives

By the end of this 3 day-course, students will be able to use R for statistical analysis and graphical representation. They will be aware of the common mistakes and will get familiar with additional tools to use R more efficiently

Dates

4 - 6 September 2024

Eligibility

Open to PhD students of the SSPH+ Inter-university Graduate Campus; other students and external participants are welcome to apply for limited spaces.

Participants must bring their own laptops.

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Course Structure	Lessons, practical exercises, group work on the optional 3rd day.

Assessment

Active participation in the exercises, homework assignment.

Credits

1 ECTS

Preliminary Work: 2 h, Contact: 24 h, Wrap-Up Work: 2 h

(1 ECTS corresponds to appr. 25-30 hours workload)

Location

Swiss Tropical & Public Health Institute, room tba

Course Fees

	1 ECTS
SSPH+IGC Students	30 CHF
Postdocs from SSPH+ partner institutes	30 CHF
External PhD students and MD students	300 CHF
Others	800 CHF

Registration

https://www.conftool.com/ssph-phd-courses2024/

Registration date

4 August 2024