UNIVERSITÄT LUZERN

Introduction to R

Tutor	Dr Nicolas Attalides
Organization	Digital Skills, University of Lucerne
Language	English
ECTS-Points	
Contact	nadia.buehler@unilu.ch
Dates and time	Online Friday 23rd February 2024 (Day 1) Saturday 24th February 2024 (Day 2) 9:30 – 16:30

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Content	The R programming language offers a huge variety of statistical analysis solutions with over 20,000 packages available to install and continues to expand in areas like visualization, text analysis and machine learning. This 2-day course focuses on introducing the participants to the world of R programming and RStudio and the fundamental basics on how to use R for data analysis. At the end of the course, the participants will be able to create objects, perform R operations, manipulate data and create simple visualisations. The course is structured to cover the following topics: • Getting started with R and Rstudio • R packages, functions, help and history • R objects, data types and factors • Object dimension, sequences, for loops and data frames • Load data into R • Export data from R • Data transformations, manipulations and workflow • Group and summarise data • Working with characters and dates • Introduction to visualisations, plots and {ggplot2} • Customising plots
Prerequisites/ Materials	No prior knowledge of the R programming or RStudio is required. Participants should have their own laptop with R and Rstudio installed. Instructions for the technical setup will be circulated by the instructor before the course. Learning material such as slides, code and solutions to exercises will be circulated by the instructor after the course.
Teaching method	This course includes a range of activities such as live-coding sessions, interactive quizzes and practical exercises to work individually or in a group. Active participation and contribution are highly recommended.