

## Introduction to R

<b>Tutor</b>	Dr Nicolas Attalides
<b>Organization</b>	Digital Skills, University of Lucerne
<b>Language</b>	English
<b>ECTS-Points</b>	1 ECTS
<b>Contact</b>	<a href="mailto:lumacss@unilu.ch">lumacss@unilu.ch</a>
<b>Dates and time</b>	Online Friday 27 <sup>th</sup> February 2026 (Day 1) Saturday 28 <sup>th</sup> February 2026 (Day 2) 9:30 – 16:30

<b>Content</b>	<p>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.</p> <p>This course focuses on introducing the participants to the world of R programming and RStudio as well as the fundamental basics on how to use R for data analysis.</p> <p>At the end of the course, the participants will be able to create objects, perform R operations, manipulate data and create simple visualisations.</p> <p>The course is structured to cover the following topics:</p> <ul style="list-style-type: none"><li>• Getting started with R and Rstudio</li><li>• R packages, functions, help and history</li><li>• R objects, data types and factors</li><li>• Object dimension, sequences, for loops and data frames</li><li>• Load data into R</li><li>• Export data from R</li><li>• Data transformations, manipulations and workflow</li><li>• Group and summarise data</li><li>• Working with characters and dates</li><li>• Introduction to visualisations, plots and {ggplot2}</li><li>• Customising plots</li></ul>
<b>Prerequisites/ Materials</b>	<p>No prior knowledge of the R programming or RStudio is required.</p> <p>Participants should have their own laptop with R and Rstudio installed. The course material and any necessary data as well as instructions for the technical setup will be circulated by the instructor before the course. Code and solutions to exercises will be circulated by the instructor after the course.</p>
<b>Teaching method</b>	<p>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.</p>