University of Zurich[UZH]

Department of Geography

GEO 812
Getting started with R for Spatial Analysis

Introduction

Peter Ranacher, Nico Neureiter

September 2023

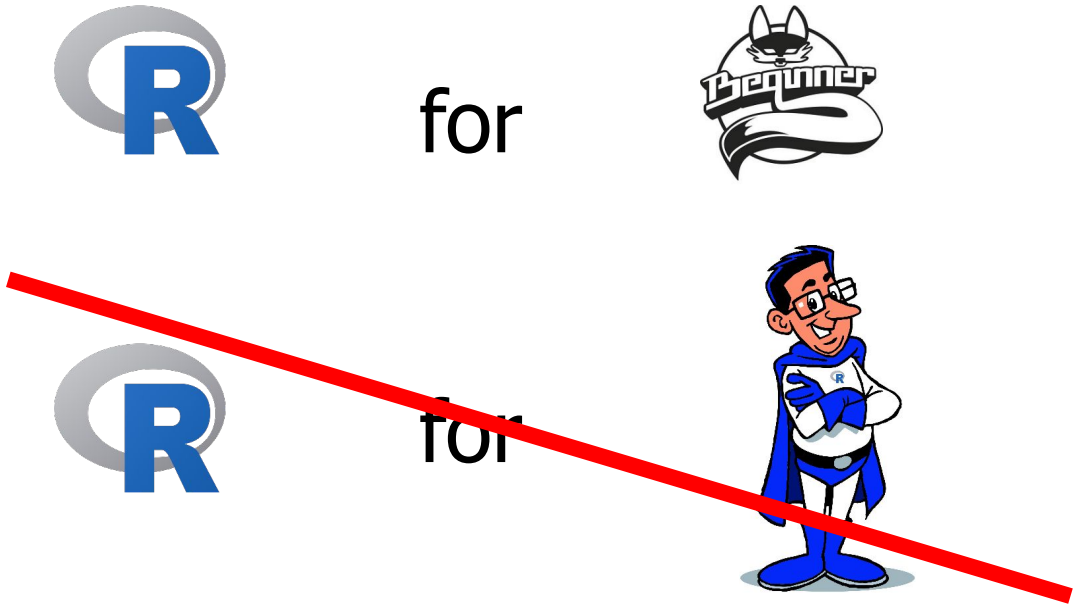
If you have not already…

Download and install R and RStudio on your personal computer

Q: How do I do that?

A: OLAT > Exercise 0

What this course is and what it is not



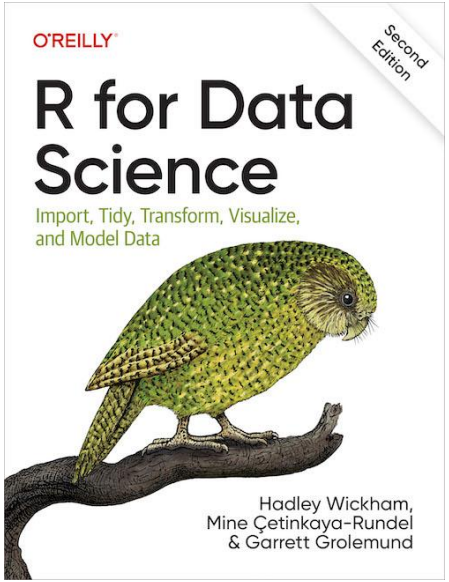
Access to lecture notes, scripts, books and additional stuff

OLAT > Materials

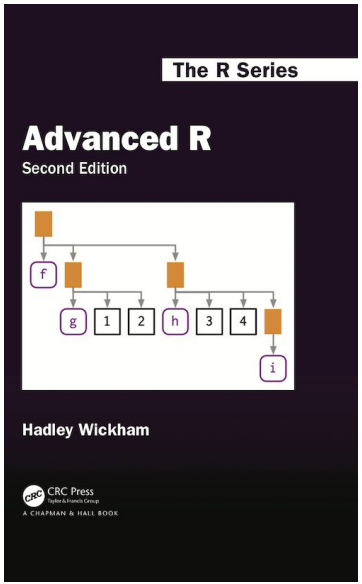
Timeline

Tuesday, 12.9.2023	
09:00 – 12:00	**Session 1: Data Exploration** *We jump right into the action and learn how to wrangle and visualise data in R using packages from the tidyverse.*
13:00 – 17:00	**Session 2: Tips and Cautionary Tales** *We learn how to make our R analyses transparent, accessible and reproducible, following the principles of open science. We learn how to work collaboratively and where to find help in times of trouble.*
Wednesday, 13.9.2023	
09:00 – 12:00	**Session 3: Data Types and Functions** *We delve into theory and explore R's most important data types. We get to know functions, functionals and loops, and learn when to use and when not to use them in R. We write our own functions and test and debug them.*
13:00 – 17:00	**Session 4: Spatial Data** *We learn how to work with spatial vector and raster data in R. We perform spatial operations, transform data between different coordinate reference systems and visualise it on a map.*
Thursday, 14.9.2023	
09:00 – 12:00	**Session 5: Project** *You put into practice the skills you've learned in the course and carry out a spatial analysis end-to-end.*
13:00—17:00	**Session 6: Wrap-up** *We conclude the course with a wrap-up and feedback session.*

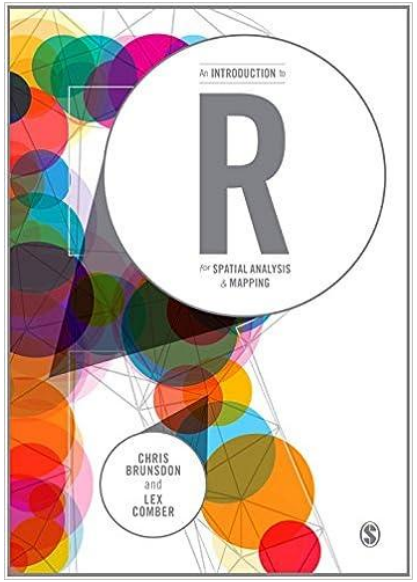
Literature



R for Data Science



Advanced R



OLAT > Materials > X Literature

How do I pass?

Four sessions with lectures with hands-on exercises. One project.

You pass the course if you complete the project.

No assignment.

No exam.