Chair of Econometrics
M.Sc. Martin C. Arnold
M.Sc. Jens Klenke

Advanced R for Econometricians

Semester overview

Course Schedule

week	date	topic	lecturer
1	2022-04-04	introduction	Jens Klenke
2	2022-04-11	rmarkdown/Git	Jens Klenke
3	2022-04-18	Easter Monday (self-study topics)	no class
4	2022-04-25	Git	Jens Klenke
5	2022-05-02	ggplot2	Jens Klenke
6	2022-05-09	dplyr/databases	Jens Klenke
7	2022-05-16	web scraping	Jens Klenke
8	2022-05-23	advanced R concepts	Martin Arnold
9	2022-05-30	functional programming	Martin Arnold
10	2022-06-06	Whit Monday (self-study topics)	no class
11	2022-06-13	Object oriented programming	Martin Arnold
12	2022-06-20	profiling/benchmarking	Martin Arnold
13	2022-06-27	improving performance	Martin Arnold
14	2022-07-04	Rcpp	Martin Arnold
15	2022-07-11	RcppAramdillo	Martin Arnold

[1] we still reserve the right to modify the schedule if necessary.

Assignments

Please note that the schedule is tentative: assignments may be postponed with respect to course progress. Given so, you will be informed about any changes in due time via Moodle and in class.

- There will be two assignments, each contributing 10% of the final grade.

- The first assignment will be issued on **May 16th**. The submission deadline is **May 30th**.

- The second assignment will be issued on **June 13th**. The submission deadline is **June 27th**.

Final Group Project

- The final projects should be confined with the topics discussed in class but may go beyond that. Since this is a programming course, you should—regardless of the specific topic of your project—demonstrate proficiency in the main paradigms taught (tidy / OOP / FP / efficient programming), if applicable.

- You may work in groups of up to 3 students. We expect you to work collaboratively, preferably via Git. Final project code should be made available in private repositories (more on this later). You should specify contributions of each group member.

- The final project is to be documented in the style of a seminar paper / reproducible research report of approx. 30 pages. We will provide a rmarkdown template from which you will benefit the most if you pay attention to Jens' rmarkdown lesson :-). You must submit your final project and the report by **September 9**th.

- Projects will be presented in oral presentations (approx. 20 minutes). The presentation will be held in the week from **October 4**th **– October 7**th. Further info follows.

Grading

The final grade will be the weighted average of the two assignments (20% each), the group project (50%) and the presentations (30%).

Topics

- Topic proposals will be posted on Moodle on **June 10**th.

- We encourage you to propose your own project ideas. Please come forward with your suggestions as early as possible so that we can discuss them and give you timely feedback.

- Projects should be registered with us until **June 17**th. We will set up a form on Moodle.

Please do not hesitate to ask if you have further questions.