

Syllabus — Research in Finance

Prof. Dr. Andre Guettler

Oliver Padmaperuma

Course information

Title	Research in Finance
Term	Winter 2025/2026
Level	Master / PhD
ECTS	6
Exam number	13337
Instructors	Prof. Dr. Andre Guettler · Oliver Padmaperuma
Contact	oliver.padmaperuma@uni-ulm.de
Location	Helmholtzstraße 22, Ulm
Time	Wednesdays 14:15–15:45
Language	English

Course objectives

This course teaches the practical craft of empirical finance research. Students learn to manage and analyze financial data in R, write up results in LaTeX/Overleaf, and critically read finance papers. The course culminates in two graded deliverables: a group problem set replicating a CFTC futures-position study and an individual referee report on a doctoral presentation.

Learning outcomes

By the end of the term, students will be able to:

1. Set up R/RStudio and use the language fluently for data analysis (vectors, data frames, functions, loops).
2. Import financial data from APIs and CSVs, cleanse, merge, transform, and visualize it with `tidyverse/ggplot2`.

3. Apply standard statistical tests (correlation, t-test, Wilcoxon, Shapiro-Wilk, KS) and run linear regressions with fixed effects and clustered standard errors.
4. Produce publication-ready LaTeX tables (`stargazer`) and embed analyses in an Overleaf write-up.
5. Critique an empirical finance paper using a structured referee-report checklist.

Prerequisites

- Bachelor-level statistics / econometrics.
- Comfort with one statistical software environment is helpful but not required — the course teaches R from the ground up.

Required materials

- Laptop with R and RStudio installed (instructions given in Lecture 1).
- A free Nasdaq Data Link (Quandl) API key.
- An Overleaf account (uni email).

Recommended reading

- Wickham and Çetinkaya-Rundel (2023) — practical foundations for data wrangling and visualisation in R.
- Scheuch, Voigt, and Weiss (2023) — a finance-specific application of the tidyverse, freely available online.
- Angrist and Pischke (2009) — the standard graduate text on causal inference and empirical strategies in economics.
- Cochrane (2005) — writing tips by John Cochrane (available on Moodle).

Timetable

Adding a new lecture folder under `lectures/` automatically updates this table — no manual edits needed.

Assessment & grading

Component	Weight	Deadline
Assignment I — Problem Set (group, R + LaTeX)	50%	19 January 2026, midnight

Component	Weight	Deadline
Assignment II — Referee Report (group of up to 5)	50%	3 February 2026

There is **no written final exam**. Registration in `campusonline` for exam **13337** is mandatory by **30 November 2025**. Without registration you cannot submit either deliverable.

Grading scale: German scale 1.0 (excellent) – 5.0 (fail). 4.0 is passing. Registered students who do not submit receive 5.0.

Submission rules

- Submit by **email** to oliver.padmaperuma@uni-ulm.de with andre.guettler@uni-ulm.de in CC.
- Use the subject and file-naming pattern `RiF2025_ProblemSet_surname1_surname2_...` (or `_RefereeReport_`).
- If attachment size is an issue, share a cloud link in the email body.

Policies

Group work

- Problem set: groups of up to **five** students.
- Referee report: groups of up to **five** students.
- Declare group composition on the cover page.

Academic integrity

All work must be your group's own; cite all sources. Use of LLMs (e.g., ChatGPT) is permitted **only to refine** writing and ideas — not to generate the substantive content — and must be disclosed.

Questions

Asking questions **during or immediately after class** is preferred. Administrative matters (study program, exam eligibility, formalities) should go to the registrar's office: studiensekretariat@uni-ulm.de.

Contact

- **Prof. Dr. Andre Guettler** — Helmholtzstraße 22, Room 205 · andre.guettler@uni-ulm.de · +49 731 50 31 030
- **Oliver Padmaperuma** — Helmholtzstraße 22, Room 203 · oliver.padmaperuma@uni-ulm.de · +49 731 50 31 036
- **Moodle** — all announcements, file drops, problem-set release, and grade postings happen on the [course Moodle page](#).

References

- Angrist, Joshua D., and Jörn-Steffen Pischke. 2009. *Mostly Harmless Econometrics: An Empiricist's Companion*. Princeton, NJ: Princeton University Press. <https://press.princeton.edu/books/paperback/9780691120355/mostly-harmless-econometrics>.
- Cochrane, John H. 2005. “Writing Tips for Ph.D. Students.” <https://www.johnhcochrane.com/research-all/writing-tips-for-phd-students>.
- Scheuch, Christoph, Stefan Voigt, and Patrick Weiss. 2023. *Tidy Finance with R*. Chapman & Hall/CRC. <https://www.tidy-finance.org/r/>.
- Wickham, Hadley, and Mine Çetinkaya-Rundel. 2023. *R for Data Science*. 2nd ed. O’Reilly. <https://r4ds.hadley.nz/>.