

# Data Visualization for Comparative Politics

Fall 2023

*Version: 2023-09-07*

*Subject to change; Announcements via ILIAS and Slack*

Wissenschaftliche Übung:	Methoden der Vergleichenden Regierungslehre
Time:	Thursday, 13:45 – 15:15, September 07 to December 07
Ort:	C -108 Methodenlabor - groß/ Telefonlabor (A 5, 6 Bauteil C)
Language:	English
Instructor:	David Schweizer, M.A., david.schweizer@uni-mannheim.de
Office hours:	In-person (A 340) or via Zoom, Thu, 13:45 – 15:15, please make an appointment by e-mail
Course website:	<a href="https://datavisualizationfall2023.netlify.app/">https://datavisualizationfall2023.netlify.app/</a>

## Course description

The course introduces students to data visualization techniques for comparative politics taking a very practical approach using the R programming language. At the beginning of the course, you will be guided into the programming language by learning the basics of data management, generating summary statistics, and simple visualizations. On this basis, we will then deal with large quantities of data – covering temporal, spatial, and relational dimensions – and more complex data visualizations such as maps, interactive plots, or GIFs.

The goal of this course is to equip the students with the necessary skills to collect (large quantities of) data, clean data sets, explore and understand patterns of data, and communicate these patterns and findings with visualizations. In addition, learning to produce effective graphs from own data is a great way to a better understanding of graphs – as well as their strengths or shortcomings – presented in research journals or the media.

In summary, this course equips you with the necessary skills

- to process large quantities of data
- to clean and arrange datasets
- to explore and understand patterns of data
- to communicate these patterns and findings
- to understand and question critically visualizations in research articles and the media

## Prerequisites

There are no prerequisites for this course, except the willingness to familiarise yourself with R.

## Course requirements

### Active participation and preparation:

Attending the weekly sessions and reading assigned articles and chapters before class. Use Slack to post any questions or discuss with your peers if you do not understand concepts. Usually, I post questions to think about regarding the readings. Keep them in mind while reading.

### “TidyTuesday” participation and short presentation of graphics

Throughout the semester, I will assign you in groups of 2-3 to participate in the TidyTuesday challenge (<https://github.com/rfordatascience/tidytuesday>). The goal is to produce anything from simple plots to advanced graphics and present your work process in the next session.

### Visualization project (100% of your grade):

Creation of multiple visualizations of (political) data. While it is possible to produce static visualizations and hand in a PDF, ideally the visualizations are part of an interactive (web) dashboard. The visualization project has to be submitted via ILIAS. Late submissions will result in deductions of 1/3 of a grade point per day. **In case of any questions or problems, please get in touch with me early.**

**Deadline:** January 18, 2024, 23:59.

## Organization & Learning Resources

### Course website, Slack, and ILIAS:

- The plan is to use primarily the course website and Slack for providing the structure of the seminar and communication, respectively. Nevertheless, you will also receive mails via ILIAS. Make sure to regularly check your university e-mail address.
  - You can find the course website here: <https://datavisualizationfall2023.netlify.app/>
  - The ILIAS seminar name is: Ü Methoden der Vergleichenden Regierungslehre: Data Visualization for Comparative Politics [WÜB] [1. PG] (HWS 2023). Ensure that you have access to the system and that e-mails sent over ILIAS are forwarded to the e-mail account you check regularly.
  - If you have contacted me with a question via any channel and you did not hear back after 2 days (except over the weekend), please just send me your question again!

**Office hours:**

- In-person (A 340) or via Zoom, Thu 15:30 – 16:30, please make an appointment by e-mail.
- If you have a specific question or problem (e.g., finding a research question), please tell me before coming to the office hours (when making the appointment). This way, I can also prepare for it and thereby making our meeting more productive and constructive.

**Covid-19 (and general illness):**

- If you feel ill or have symptoms, please be considerate of your fellow students and yourself (!). Just let me know by e-mail.

**Students with disabilities or chronic illnesses:**

- Please contact me or the Office of Student Affairs if you need special assistance due to disabilities or chronic illnesses.
- And please do this early in the semester so that we can make the appropriate arrangements immediately.

**If you need any support:**

Of course, you can always talk directly to me if you feel comfortable with the question. It is important to note that the [University's Equality and Diversity Office](#) supports and advises you in cases of discrimination or sexual harassment. The responsible contact person in such a case is Dipl.-Psych. Ute Pfründer. She is trained to deal with such incidents and will keep everything strictly confidential. No action will be taken without your express consent. Further counseling services offered by the university can be found via [this link](#).

**Textbooks**

The primary readings for this seminar are chapters from the following books:

- Cairo, Alberto. *The truthful art: Data, charts, and maps for communication*. New Riders, 2016.  
*Free access via Katalog Primo (UB Mannheim)*
- Healy, Kieran. *Data visualization: a practical introduction*. Princeton University Press, 2018.  
*Free access via Katalog Primo and free online: <https://socviz.co/>*
- Wilke, Claus E. *Fundamentals of Data Visualization*. O'Reilly Media, 2018)  
*Free access via Katalog Primo and free online: <https://clauswilke.com/dataviz/>*

## Course Schedule and Reading Material

The course schedule might change throughout the semester depending on our progress. The readings for each session will be updated weekly on the course website. Keep an eye on announcements on Slack or ILIAS.

Session	Date	Topic
1	07.09.2023	Intro Session
2	14.09.2023	Grammar of Graphics
3	21.09.2023	(Tidy) Data
4	28.09.2023	Amounts & Proportions
5	05.10.2023	Themes & Refining Plots
6	12.10.2023	Relationships
7	19.10.2023	Comparisons
8	26.10.2023	Uncertainty
9	02.11.2023	Time Series & Trends
10	09.11.2023	Geospatial Data
11	16.11.2023	Annotations
12	23.11.2023	Interactivity I
13	30.11.2023	Interactivity II
14	07.12.2023	Closing Session