

# Teaching Portfolio – University of Hamburg

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## Why I want to work at the University of Hamburg:

The position offers a perfect fit between my teaching portfolio and my research agenda: data science and studying challenges to democracy. My current teaching portfolio already seeks to combine these pillars but in my current professorship I'm much more restricted in terms of teaching data science. The research conducted at the University of Hamburg is a much closer fit to my research agenda both methodologically (e.g. 'P6: Causality and responsibility in collective decision-making') as well as substantially (e.g. research on (social) 'norms').

## My teaching philosophy:

- **Competency and practice-oriented knowledge transfer**
- **Critical reflection of literature, methods, arguments, and instructors**
- **Match of my substantial research interests with teaching content**
- **Teaching how to deal with data embedded into substantial research questions**
- **Diversity, flat hierarchy:**
  - All courses can be offered in German or English.
  - All courses, including lectures, use diverse exercises (e.g., peer review systems, group discussions, surveys, mini-conferences, expert panels with examples from journalists, writing blog posts, and much more)
  - As my evaluations show, I insist on very flat hierarchies: I want to discuss with students, engage in dialogue.
  - I ensure balanced literature in terms of gender, methods, and fields of study.
  - "Desired content": I inquire in the first session of seminars if students are missing certain topics within the seminar and try to incorporate these.

## Possible BA Offerings at the University of Hamburg:

- **Introductory courses:**
  - Lecture: "Introduction to Comparative Democracy Research"
  - Political institutions in comparative perspective
  - **Introduction to data science for social scientists with an application to comparative politics**
- **Intro to data science:**
  - Basic Course in Empirical Social Research Methods
  - Causal Inference in Social Science
  - Generating and Managing Data
  - Analyzing Text as Data
  - Introduction to R/Stata (with some Python + JavaScript)
- **Advanced courses:**
  - SE Political Culture and Social Norms
  - SE Cleavages: Political Conflict Lines and Their Shifts
  - SE Revolutions and Democracy Research
  - SE Comparative Democracies
  - SE The Rise of the Radical Right in Western Europe
  - SE Political Representation
  - Reading course: "How Democracies Die" by Steven Levitsky & Dan Ziblatt
  - Reading course: "Engineers of Jihad" by Diego Gambetta & Steffen Hertog
- **Colloquia**
- **Substantial Content: Institutions, Democracy Research, and Political Culture**
  - Introduction to political institutions
  - How do political institutions emerge and change? How do they affect politics and societies?
  - Introduction to research on electoral systems
  - Democracies and political culture in comparative perspective
  - Extremism: how it arises, what fosters it, how it impacts societies.

## Offers for Staff:

- My Research Assistants have biweekly meetings to learn and critically discuss causal inference and research texts (RAs start with me from the 2nd BA semester)
- **Mentoring:** I am part of a mentoring program specifically for female colleagues at ETH Zurich ('Fix the leaky pipeline'). I am eager to support and advance similar ideas/programs at Hamburg.

## Possible MA Offerings at the University of Hamburg:

- **Democracy Research:**
  - Democratic Decision-making in Times of Backsliding
  - Democratic Backsliding in Comparative Perspective
  - The Rise of Democracies: Revolutions
  - How can we measure democratic support?
  - When extreme parties enter the state: causes and consequences
- **Comparative Extremism**
  - Migration and Radical Right Voting
  - The Roots of Political Extremism
  - The Legacy of Political Regimes and Extremism
  - The Role of Social Media for Extremism and Hate
  - Remedies for Extremism
- **Minorities and Democracy:**
  - Political Representation of Minorities
  - Political Institutions and Women's Rights
  - Orchestrating Hate: Reasons for Political Violence and Hate Crimes
  - Antisemitism: Legacies, Continuity, and Conspiracies
- **Data Science & Digitalization:**
  - Research Design
  - Causal Inference
  - Experiments in Social Sciences
  - Data collection and measurement in Social Sciences (e.g. web-scraping, 'text as data', integrating AI, )
  - Advanced Coding (R, Python, JavaScript)
- **Project Module/Research Seminars**
  - Key challenges to contemporary societies (incl. Inequality, Racism, Global Warming, Poverty, Populism)
  - Advanced Causal Inference (design your own experiment, conduct data collection, write pre-analysis plan)
  - Applying Generative AI as a Data Scientist: promises and pitfalls
- **Colloquia**

## Additional Offerings:

- Motivated to contribute to **all MA programs**
- Also eager to contribute to **doctoral/postgraduate training** (e.g., Methodology, key issues in social sciences)
- **Enhancing international cooperation** through my existing networks at LSE, Harvard, U Aarhus, U Zurich



# Syllabus:

# Data science for social scientists with an application to comparative politics

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## Summary:

The course, "Data Science in Comparative Politics," seamlessly integrates data science with political analysis, structured into three comprehensive blocks. Lecturing is combined with tutorials in which the applications are repeated and expanded. Each section combines theoretical concepts with practical R applications.

Block 1: Political Systems focuses on understanding different political regimes, system changes like revolutions, and shifts in democratic attitudes and values through practical tasks like data reading, manipulation, and visualization in R.

Block 2: Elites, Parties delves into political parties' dynamics and representation issues, introducing students to Natural Language Processing, web scraping, and regression models to analyze electoral systems.

Block 3: Research Design emphasizes the complexity of causal inference, using models like the Neyman-Rubin and Directed Acyclic Graphs (DAGs). It explores designing and implementing various experiments, stressing ethical considerations.

Thus, the course equips students with critical data science skills applied to comparative politics, culminating in an exam to assess their applied knowledge.

## Introduction: Why Data Science in Comparative Politics?

*Application: Installing R, R-Studio, first steps, prompting ChatGPT to learn coding*

## Block 1: Political Systems

- 2. Democracy, autocracy, and hybrid regimes  
*Application: reading data in R, RMarkdown*
- 3. System change: revolution  
*Application: understanding data types (manipulating data)*
- 4. Democratic attitudes  
*Application: survey data and its pitfalls (manipulating data)*
- 5. Values and value change  
*Application: data visualization (manipulating data)*

## Block 2: Elites, Parties

- 6. Political Parties: left, right, center  
*Application: 'text as data', bag of words, latent dimensions (manipulating data)*
- 7. Representation: do elites represent citizens?  
*Application: Natural Language Processing, AI (manipulating data)*
- 8. Electoral systems and party systems  
*Application: Web Scraping, APIs*
- 9. Courts  
*Application: regression models, how courts can slow down policy making (Veto players, raising concerns for causal inference)*

## Block 3: Data and theory are not enough: Research Design

- 10. Comparative Politics, AI and the fundamental problem of causal inference  
*Application: Neyman-Rubin causal model, DAGs*
- 11. Survey Experiments  
*Application: designing a simple experiment using javascript*
- 12. Quasi-Experiments  
*Application: Turning existing research into quasi-experiments*
- 13. Field Experiments Ethics  
*No application, question hour*

## Exam:

- 14. problem set in R

**NOTE:** Please read this as an idea how to develop a syllabus for this course. In this example I balanced (50-50 split) substantial content with data science. This balance can be of course adapted to teaching needs in Hamburg.