**Political Economy: Elections, Information, and Accountability**

**Course dates**

Responsible teacher of the module: Prof. Dr. Camille Urvoy  
Cycle of offer: fall semester  
ECTS credits: 6.5  
Teaching method (hours per week): lecture (2) + exercise (1)  
Course language: English  
Prerequisites: Statistik I and II, Grundlagen der Ökonometrie (basic knowledge of statistics and econometrics)  
Grading: classroom discussion (10%) + mid-term exam (60 minutes, 40%) + final take-home assignment (50%). For the final take-home assignment, you have to read an article and answer questions.  
Grading: final take home exam that requires:  
• Reading a paper and answering questions.  
• Working on simulated data to implement causal inference methods.  
Processing time of the exam is one week.

Goals and contents of the module: This course will be an introduction to main topics in political economy. We will first study elections, and how well they can map voters’ preferences in public policies, as well as the extent to which they allow voters to hold their representatives accountable. We will also consider the role of information, and how recent technological changes (internet, social media) have reshaped the media landscape. We will focus on empirical work that provide case studies of important policies or natural experiments. The goal is to provide students with evidence-based answers on the political economy research questions. In the tutorial sessions, we will use Stata to analyze data and see how we can empirical methods (difference in differences, RDD) to identify causal effects.

Expected competences acquired after completion of the module: Students are expected to familiarize with reading academic articles. The goal is that they understand how a research question fits in a broader literature, develop a basic understanding of the econometric methods employed and become able to gauge the credibility of the results. They should also gain a deeper understanding of the topics covered in class and be able to critically analyze policies based on empirical evidence.

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**27.06.2023**

**Aktualisierung**

**Applied Multivariate Statistics (AMS)**

**Course dates**

- Responsible teacher of the module: Dr. Toni Stocker
- Cycle of offer: each fall semester
- ECTS credits: 7
- Teaching method (hours per week): lecture (2) + exercise (2) (3)
- Course language: English
- Prerequisites: Basic Statistics, Basic Econometrics or Linear Algebra, Laptop required
- Grading: final written exam (120 minutes, 80 %) + homework assignments to submit plus cooperative learning in tutorials during the semester (20 %). There are 13 exercise sheets spread over the semester, each with 4-8 tasks.
- Achieving a minimum of points in the homework gradings is required for participating in the exam (please check the course guidelines for details). The final grade is based on points from the tutorials and points form the final written exam. At maximum, there are 100 points to earn, where 20 points are from the tutorials and 80 points from the written exam.

**Goals and contents of the module:** Subject of this course is to provide an overview about classical methods for describing and analyzing high-dimensional data. Thereby the main focus is on their practical application. The Statistical Software R will intensively be used throughout the course and also in the final exam.

**Contents:** Introduction to AMS, Matrix Algebra, Multivariate Samples, Principal Component Analysis (PCA), Biplots, Factor Analysis, Multidimensional Scaling (MDS), Cluster Analysis, Linear Discriminant Analysis (LDA), Binary Response Models, Statistical Methods for Data Science

**Expected competences acquired after completion of the module:** At the end of the semester students know and understand most common methods for analyzing multivariate data and their theoretical background can proficiently use R when using multivariate techniques: data import, constructing graphics, inference, model diagnosis and assessment have experienced the possibilities and limitations of multivariate methods on the basis of real data examples.

**Further information:** Students should have a solid background in Statistics (e.g., two or more courses in Statistics). A course in Basic Econometrics is helpful but not strictly required. The course should be attended from the first session. Entering the course later is strongly discouraged.

**Contact Information:** Dr. Toni Stocker; Phone: +49 621 181 3963; E-mail: stocker(at)uni-mannheim.de

Office: L7,3-5; 1st floor, room 143; Office hours: Wednesday, 3:00-4:30 p.m. or upon appointment.
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<th><strong>Applied Economics</strong></th>
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<tr>
<td><strong>Course dates</strong></td>
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<tr>
<td>Responsible teacher of the module: Prof. Philipp Ager, Ph.D.</td>
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<tr>
<td>Cycle of offer: each fall semester</td>
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<td><strong>ECTS credits: 6 or 7</strong></td>
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<tr>
<td>6 ECTS for 1 hour per week exercise and 7 ECTS for 2 hours per week exercise</td>
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<tr>
<td><strong>Teaching method (hours per week): lecture (2) and exercise (1 or 2)</strong></td>
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<td><strong>Course language:</strong> English</td>
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<td><strong>Prerequisites:</strong> Statistik I + II, Grundlagen der Ökonometrie</td>
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<tr>
<td><strong>Grading:</strong> final exam (120 min, 100%) for students enrolled for 6 ECTS / final exam (120 min, 80%) and presentations (20 min, 20%) for students enrolled for 7 ECTS</td>
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Goals and contents of the module: The course introduces three main empirical strategies that are used in applied work to establish causality: difference-in-differences, event-study designs, and instrumental variables. For example, in applied microeconomics, the number of papers in top-5 economics journals with explicit reference to identification has increased from less than 5% at the beginning of the 1980s to around 50% as of today. In these outlets, the use of difference-in-differences and event studies in applied work gained in popularity over the last 10 years complementing traditional methods such as instrumental variables and fixed effects models.

Exercise: compulsory exercise session (1), we will learn to apply every method, discuss common pitfalls that applied researchers might encounter, and provide potential remedies based on recent advances in the field. Optional exercise session (2): students (in groups of 3) must present a research article. The list of articles for the presentation sessions will be handed out at the beginning of the semester. The students must pick one of the papers on the list, which will be allocated on a first come and first served basis. The presentation should be 20 minutes long, containing a detailed summary of the presented article (60% of the presentation) and a critical evaluation (40%). The presentation will take place on one day at the end of the semester.

Expected competencies acquired after completion of the course: Students understand the empirical methods learned in class, know their potential pitfalls and remedies how to solve/circumvent them. Students learn how to implement the empirical methods covered in class and they are able to critically evaluate research papers using these methods.

Further information: Useful background material:
- Scott Cunningham (2021): Causal Inference: The Mixtape

Contact Information: Prof. Philipp Ager, PhD; E-mail: philipp.ager@uni-mannheim.de