



Studying Methods at IPZ

Methods Education in our BA Programme Political Science

The Department of Political Science (IPZ) stands for excellent political science research and teaching. In our study programmes, a comprehensive methods training is a key priority. This document introduces the core features of our methods curriculum, describes content and didactics of the five modules at the heart of our BA programme, and shows how this methods curriculum is integrated into the study programme as a whole.

Guiding Principles of our Methods Education

Our study programmes are guided by a shared vision of methods education. Rather than teaching techniques in isolation, methods training at IPZ strives to achieve the following:

Linking methods to content	Methods are introduced and applied in the context of substantive political science questions.
Practical application and real-world relevance	Students regularly work with real data, design studies, and interpret empirical results. Analytical skills are connected to societally relevant questions, everyday issues and professional practice.
Progressive learning	Skills build deliberately across modules: from description to inference to causal analysis, from applying single methods to the construction of entire research designs.
Reflective thinking	Students learn to evaluate methods critically, including their assumptions and limitations.

BA Political Science: Methods Curriculum Overview

The BA methods curriculum consists of five modules: four compulsory lecture-format courses and one applied seminar module. The four lectures follow a deliberate sequence, moving from foundational quantitative and descriptive methods to advanced modelling, before introducing qualitative approaches and returning to fundamental elements of both quantitative and qualitative research design. The applied seminar module allows students to deepen their skills through substantively engaging, hands-on projects.

615-017 Introduction to Methods and Statistics – 1st Semester

This course marks students' first encounter with empirical political science. The central challenge is to demonstrate, from the very beginning, that methods are indispensable tools for answering the political questions students care about. To reduce the risk of students experiencing methods as an abstract hurdle, the course keeps substantive questions front and centre throughout.

The course is structured around five core empirical tasks: description, population inference, statistical modelling, prediction and causal inference. In the first block, students learn to work with datasets, understand concepts such as operationalization and measurement, and produce visualizations and descriptive statistics using R. The second block introduces sampling and probability theory, culminating in hypothesis testing and the research cycle. The third block offers a first encounter with regression analysis — not as a technical exercise, but as a way of translating theoretical ideas into empirical tests. The final block introduces causal thinking through case study designs, laying the groundwork for the following semester.

Pedagogically, weekly in-class tests and exercises provide continuous formative feedback. Live polling (Clicker UZH) encourages active participation, and an AI-supported system guides students to additional materials based on their individual performance — a key mechanism for personalised, self-directed learning.

615-018 Intermediate Methods and Statistics – 2nd Semester

Building on the first course, this module deepens students' quantitative toolkit with an explicit emphasis on practical application. Each lecture session is motivated by a substantive political science question — such as the effect of gun legislation on violence, or whether pre-stamped voting envelopes increase turnout — and the new method introduced that week is used to answer it.

The course opens with the counterfactual model of causality and the logic of randomised experiments, before moving into linear regression across several weeks: first as a descriptive and predictive tool, then with increasingly sophisticated model specifications including interactions and dummy variables. The course then turns to causal inference from observational data, covering panel models, fixed effects, and difference-in-differences designs. Uncertainty and hypothesis testing are introduced later in the semester — intentionally, so that students first develop a solid intuitive grasp of models. The course concludes with binary outcome models (logit and probit).

Tutorial sessions take place weekly and are structured around hands-on exercises with real data. Two dedicated repetition weeks — one at mid-semester and one at the end — allow students to consolidate learning and identify gaps. Students attend tutorials in small groups, facilitating peer learning and individual support. In addition, students receive weekly exercises (Klicker UZH) allowing to monitor their conceptual understanding of the new topics.

615-019 Advanced Methods and Statistics – 3rd Semester

The third quantitative course operates at the intersection of methodological sophistication and independent research. It has four substantive foci: advanced regression models for different data structures, latent variable measurement, survey and experimental design, and machine learning.

Students learn to model categorical and count outcomes, handle time series and panel data, and work with multilevel structures — all areas where political science data frequently falls short of the

standard assumptions of OLS regression. A separate module introduces exploratory and confirmatory factor analysis, giving students tools for constructing and validating measurement instruments. A block on experimental design and survey construction connects data analysis to data collection, completing the research cycle. Finally, students learn about machine learning techniques and their potential uses in political science.

The defining pedagogical feature of this course is a semester-long group project in which teams of five students conduct an original empirical study from start to finish: formulating a research question, reviewing the literature, developing hypotheses, collecting and analysing data, and presenting their findings as a poster. This project gives concrete shape to the research cycle and builds the collaborative skills students will need for thesis work. Individual assignments and a strong emphasis on reproducible workflows using R and Quarto further reinforce professional research practice.

615-021 Research Design and Qualitative Methods – 4th Semester

This course provides students with an overview about different types and key elements of research designs in political science and introduces students to the logic, tools, and practice of qualitative research. By emphasizing the commonalities and differences as well as the strengths and weaknesses of different quantitative and qualitative approaches, the course aims at widening students' ability to choose and implement the appropriate empirical method for a research question at hand.

The course begins by revisiting the fundamentals of research logic and design and providing an overview about the large variety of quantitative and qualitative research designs. It then covers theory-building, case selection, conceptualization, operationalization, and data collection techniques (interviews, documents, fieldwork) and discusses that they form the backbone to both types of research. In the last part, the course introduces qualitative methods of analysis, focusing on single and comparative case studies, process tracing, and QCA. It concludes with mixed-methods designs that explicitly connect qualitative and quantitative approaches.

This course links theoretical discussion with hands-on advice and research experience. Students gain confidence in conducting qualitative research by carrying out, transcribing and analysing a qualitative interview. Tutorial sessions are closely integrated with the lecture and serve to clarify open questions, explore practical applications of the methods discussed in the lecture and to practice their use. The course thus enables students to plan and carry out their own research projects and to understand the value of both quantitative and qualitative approaches.

615-036 Applied Methods (Seminars) – 4th-6th Semester

The Applied Methods module consists of a rotating selection of advanced research seminars. Unlike the compulsory lecture courses, these seminars allow students to choose a topic that matches their substantive interests while simultaneously deepening their methodological toolkit in a focused and applied setting. Current examples include Tackling Big Questions Using Social Data Science and Data Science for Peace and Development.

These seminars share a common pedagogical logic: students encounter a substantive societal challenge (loneliness, political polarization, conflict, human rights) and learn the quantitative or qualitative methods needed to study it empirically. Depending on the seminar, students work with

panel regression, matching techniques, agent-based models, social network analysis, machine learning, or causal inference — always in direct service of understanding a real-world phenomenon.

Assessment formats in these seminars are deliberately innovative. One seminar asks students to submit short 30-second video presentations throughout the semester alongside data analysis assignments, building communication skills alongside analytical ones. Another asks students to write an original data-driven research paper with a presentation component. Both formats prioritise genuine engagement with empirical evidence and foster the kind of independent, self-directed learning that prepares students for thesis work and beyond.

Methods Training in the BA Curriculum as a Whole

Taken together, the five modules described above form a coherent and progressive pathway towards methods proficiency. Students move from basic data literacy and descriptive analysis to causal inference and advanced modelling, while simultaneously developing qualitative skills and experiencing what it means to design, conduct, and communicate original research. At every stage, the methods curriculum in our BA programme is guided by the conviction that learning methods means learning to ask better questions — and to answer them with rigour, care, and intellectual honesty.

The IPZ methods curriculum is embedded in the entire political science study programme in such a way that students have numerous and diverse opportunities throughout their studies to continuously consolidate and expand the methodological skills they have acquired in specific methods courses, to apply these skills, and to recognize the practical and, where applicable, future professional relevance of these skills early on their studies. To ensure this, applied seminars integrate methodological issues with substantive theoretical discussions. These discussions can touch various phases of the research process (research question, state of research, theory, research design, data collection, data description, and data analysis). In this way, method-intensive research-based learning is practiced throughout the entire course of study.

The curriculum as a whole reflects a deliberate choice to invest in both breadth and depth: breadth in covering quantitative and qualitative traditions, and a range of methods; depth in ensuring students develop genuine competence and confidence rather than superficial familiarity. The BA methods curriculum equips students not only with technical skills but also with the conceptual understanding and intellectual confidence to engage in empirical political science. The result is a methods education that does not end at graduation — but that prepares students to continue learning and applying methods throughout their academic and professional lives.