PLSC 501

Methods of Political Analysis

Professor Daniel Tavana

This course introduces students to the logic that guides the social scientific study of politics. In contrast to PLSC 502, 503, and 504, which focus on the analysis of data, this seminar focuses on the fundamentals of social scientific inquiry, theory building, and research design that precede data analysis. In 2008, Donald Rubin coined a now ubiquitous phrase: "Design trumps analysis." In this course, we're going to think about what this means and why this is. The course will provide students with the tools necessary to 1) distinguish theories from facts and assertions; 2) derive testable and falsifiable hypotheses from theory; and 3) design research projects, conduct research, and communicate results. We will consider the components of good research design as we cover a variety of methods used in contemporary political science research. The course is designed to encourage students to think more deeply about their own research interests and improve their ability to evaluate the research of others. Topics include concepts and measurement, design in experimental and observational settings, qualitative methodology, survey sampling and selection, comparisons of small-N and large-N designs, and approaches to scientific inference.

Thursdays, 1:25 p.m. – 4:25 p.m.

236 Pond Lab

PLSC 502

Statistical Methods for Political Research

Professor Christopher Zorn

This course provides an introduction to the principles of probability and mathematical statistics. Here you will learn the foundational principles of statistics that will be important for any type of quantitative analysis you will do in the future. This includes topics such as probability, distributions, estimation, hypothesis testing, cross-tabulations, and linear regression. The material taught in this class will be important for understanding later classes in the methods sequence on regression and other topics.

Mondays, 9:00 a.m. – 12:00 p.m.

069 Willard Building

PLSC 504

Topics in Political Methodology

Professor Christopher Zorn

This is an elective course in statistical methods designed to meet the particular needs of students in the political science Ph. D. curriculum. PL SC 504 is tailored to focus on the specific issues that arise in the types of data found in political science applications. Students are expected to have completed the three required foundational courses in political methodology or their equivalents. This course examines a range of regression-like models widely used in empirical political science. Its core focus is on maximum likelihood estimation of models for various kinds of limited-dependent and qualitative response variables. Specific models covered are widely used in political science today, including binary logit and probit, multinomial logit and probit, ordered logit and probit, and Poisson regression models. Additional topics include models for time-to-event (survival) data, panel data and time-series cross-sectional analysis, item response theory, multi-level models, and methods for causal inference using observational data. Students will apply these models in a series of homework assignments and a replication project. Empirical political scientists must have familiarity with these models; these techniques represent a minimal level of statistical competence necessary for those seeking to do advanced quantitative analysis in the political science. The material in this course is technical, but students will be given an intuitive rationale for each model. Weekly homework assignments will be based on data from published research in political science.

Wednesdays, 9:00 a.m. – 12:00 p.m.

025 Burrowes Building

PL SC 508

Social and Political Network Analytics

Professor Bruce Desmarais

A network is a set of relationships among units. The study of networks in political science, the social sciences, and beyond has grown rapidly in recent years. This course is a comprehensive introduction to methods for analyzing network data. We will cover network data collection and management, the formulation and expression of network theory, network visualization and description; and methods for statistical inference with networks. The course will make extensive use of real-world applications---primarily in political science---and students will gain a thorough background in the use of network analytic software. Though most of the applications will be drawn from political science, and we will prioritize methods that are common in political networks research, this course will be relevant to anyone interested in the study of network data.

Tuesdays, 9:00 a.m. – 12:00 p.m.

306 Boucke Building

PLSC 511
Professional Norms in Political Science
Professor Peter Hatemi

This course has three main related goals. The first is to help you get the most out of your graduate school experience. The second is to help prepare you for becoming an academic by improving your understanding of the profession. The third is to prepare you to be an effective and engaged teacher. To accomplish these goals, we will discuss how to make the most of the graduate school experience to make your job portfolio is as strong as it can be. We will learn how to be an effective teacher and mentor inside and outside of the classroom by developing effective syllabi, preparing to teach diverse student populations, and tailoring class sections to meet student needs. Other topics will include diversity in the profession, strategies for effective conference attendance, and the responsible conduct of research.

Students will be expected to attend each and every session, participate in seminar discussions, and complete weekly assignments. Grading for the course will be pass/fail.

 Note: You should enroll in this course if you are entering the second semester of your first year. This is a required, 1.5 credit course.

Tuesdays, 10:35 a.m. – 12:05 p.m.

151 Willard Building

PLSC 513
Writing and Professional Development in Political Science
Professor Peter Hatemi

Professional development focusing on the publishing research, writing dissertations, and professional issues of advanced graduate students. This course is designed to help advanced graduate students surmount the challenges they face as they turn to writing a dissertation and prepare to become junior faculty. The course is designed to give practical advice on many of the issues faced by these students. Primary among these is learning to turn to initial papers into research publishable in high quality peer reviewed journals. The course also focuses on practical advice on finishing comprehensive exams, starting a dissertation and early preparation for the job market.

Note: You should enroll in this course if you are entering your second year in the program. This course is the second of two required, 1.5 credit professional development courses in the graduate program in political science.

Thursdays, 10:35 a.m. – 12:05 p.m.

151 Willard Building

PLSC/SOC 519

Survey Methods II: Analysis of Survey Data

Professor Eric Plutzer

Cross-listed with Sociology

Data collected by surveys have a combination of qualities that represent challenges to valid inference. These include cluster and stratified sampling, under-representation of some groups due to differential response rates, missing data due to item non-response, and coarse measurement (3-4 categories to capture rich concepts such as religious faith or economic status). We often use surveys to test theories that the original survey designer did not intend to address, raising issues of validity and reliability of measurement. At the same time, surveys offer a number of opportunities and, when combined with other surveys (pooled cross sections) or merged with contextual data, can address a wide range of theoretical puzzles in the social sciences. This course provides an *introduction* to techniques in applied statistics that have been developed specifically to address the special features of survey data: use of design weights, post-stratification weights, accounting for clustering and other features of the research design in analysis, merging surveys with other surveys or auxiliary data, and missing data imputation. The class will emphasize the intuition of the theory underlying the statistical models rather than focusing on proofs and estimation. This will provide a foundation for frequent hands-on applications in this seminar and for subsequent enrollment in more advanced courses offered by the Statistics department and the various social science departments.

Mondays & Wednesdays, 6:00 p.m. – 7:30 p.m.

207 Ford Building

PLSC 541

American Political Institutions: State Politics

Professor Tracee Saunders

The fifty state governments are often referred to as "laboratories of democracy." On the one hand, this label refers to the role that states play in the policymaking process by experimenting with policies across time and space. In this course, we will examine how policies are developed and implemented, how they diffuse across state lines, and how the federal government encourages (and discourages) this process of policy experimentation. But states are also laboratories for scholars. As we review the literature on state political institutions and behavior, we will pay particular attention to how the states can be used by scholars to test general questions about political institutions, mass behavior, and representation.

Thursdays, 1:25 p.m. – 4:25 p.m.

236 Pond Lab

PLSC 552

Comparative Political Behavior

Professor Daniel Tavana

This course explores mass politics, elections, and political behavior in comparative perspective using the tools of quantitative social science. The primary goals of the course are to provide students with an overview of the field and to prepare students to conduct research. We will focus on the intellectual evolution of the field, canonical debates, and emerging questions and controversies. The course will proceed thematically: each week will cover a different research area. For each research area, we will focus both on foundational texts and recent research. This approach will encourage students to think critically about how innovative research design can generate new insights into key debates in comparative politics. Because student interest in different research areas varies, topics may change across semesters. These topics include citizen values, party systems, and social cleavages; groups, ethnicity, and identity; class and economic voting; representation, responsiveness, and citizen-elite linkages; information and political knowledge; protest participation; political parties and partisanship; and ideology. Methodological questions central to the cross-national study of political behavior will be introduced alongside these substantive research areas. Canonical work in the field draws primarily from evidence from advanced democracies in Europe and North America. But we will also emphasize a growing body of scholarship that incorporates insights from across the Global South and, where appropriate, non-democratic contexts.

Tuesdays, 1:25p.m. – 4:25 p.m.

236 Pond Lab

SODA 502

Approaches and Issues in Social Data Analytics

Professor Charles Seguin

Addresses the interdisciplinary integration of computational, informational, statistical, visual analytic, and social scientific approaches to learning from data that are both "social" (about, or arising from, human interactions) and "big" (of sufficient scale, variety, or complexity to strain the informational, computational, or cognitive limits of conventional social scientific approaches to data collection or analysis). Includes alternative scientific models for learning from data (Bayesian inference, causal inference, statistical / machine learning, visual analytics, measurement modeling), analytics issues with big data (variable selection, parallel computing, algorithmic scaling, ensemble modeling, validation), analytics issues with particular structures and channels of social data (network data, geospatial data, intensive longitudinal data, text data), and issues of scientific responsibility and ethics in analysis of big social data.

Thursdays, 2:00 p.m. – 5:00 p.m.

202 Chambers Building

PLSC 597.002

State Repression

Professor Cyanne Loyle

States and their governments protect our human rights and paradoxically are the main source of the violation of those rights. This course will review and advance the existing literature on the complex and often violent relationship between state power and challenges to that power with a specific focus on when and how states choose to violate individual human rights. We will focus on the theoretical and methodological study of state repression. Topics will include non-coercive forms of repression, protest policing, civilian targeting in insurgency and other forms of rebellion, and genocide.

Mondays, 1:25 p.m. – 4:25 p.m.

018 Henderson Building