Fall 2023
Graduate Seminar Descriptions
Department of Political Science

PLSC 501
Methods of Political Analysis
Professor Giancarlo Visconti

This seminar is about research design. In contrast to 502-504, which focus on the analysis of data you have, this seminar focuses on the prior concern of how to collect data worth analyzing. In 2008, Don Rubin coined a now ubiquitous phrase: "design trumps analysis." In this course, we're going to think about what this means, why this is, and what you can do to design your research to provide compelling support for your arguments. Topics include design in experimental and observational settings, sampling and selection, concepts and measurement, challenges of small-N to large-N to massive-N designs, and approaches to inference.

Tuesdays, 2:00 p.m. – 5:00 p.m.
143 Stuckman Building

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.
009 Sparks Building

Fall 2023
Graduate Seminar Descriptions
Department of Political Science

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 a.m.
236 Pond Lab

Fall 2023
Graduate Seminar Descriptions
Department of Political Science

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, 6:00 p.m. – 7:30 p.m.
113 Keller Building

Fall 2023
Graduate Seminar Descriptions
Department of Political Science

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, 6:00 p.m. – 7:30 p.m.

112 Keller Building

Fall 2023
Graduate Seminar Descriptions
Department of Political Science

PLSC 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.

208 Ford Building

Fall 2023
Graduate Seminar Descriptions
Department of Political Science

PLSC 540

American Political Proseminar: American Government and Politics

Professor Michael Nelson

This course introduces graduate students to the core concepts and controversies in the study of American politics. We will discuss the evolution of research on American political institutions and behavior through discussions of both current and classic readings. We will consider both how these readings contribute to our knowledge of politics in the United States and how researchers designed and executed their studies.

This course has three central aims: to help students find feasible research questions that they can investigate throughout their graduate careers, to begin to prepare students for the field examination in American politics, and to ready students for more advanced seminars in American political institutions and behavior.

Tuesdays, 9:00 a.m. – 12:00 p.m.

122 Pond Lab

Fall 2023
Graduate Seminar Descriptions
Department of Political Science

PLSC 551
Comparative Political Economy
Professor Vineeta Yadav

This class aims to provide an introduction to and an overview of the role of domestic political institutions in current research in comparative and international political economy. Political economy in its entirety explores how domestic and international political configurations (institutions, structures, etc.) and events (elections, coups, oil shocks, currency crisis, etc.) systematically produce certain specific economic policies, and influence their effects. In this class we will focus *only* on the first of these two broad categories of work – the role of domestic political institutions in initiating, enacting and implementing economic outcomes. The class assumes students have taken the comparative seminar.

The class is divided into three segments, (i) theories of institutional origins (ii) institutional influence on key actors and delegated institutions and, (iii) specific economic outcomes. For section (ii) we will consider the theoretical and empirical body of work which studies how institutions affect political party systems, special interest groups, the bureaucracy and the judiciary. We will then look at some of the most prominent models of policymaking and how they incorporate institutional factors before finally moving on to study specific policy issues. For section (iii), I have provided a list of 6 topics from which we as a class will choose 3 topics to focus on. Please look at these and jot down your preferences before we meet in class for the first time. We will cover both democracies and autocracies among developing and developed countries.

As a class in comparative politics, one of the aims of the discussion in the class will be to test abstract theories of political economy using in-depth knowledge of specific cases, and to further our understanding of cases by applying lessons from theoretical and statistical work. As such, I highly encourage you to choose a couple of countries, preferably one you are familiar with and one you have very little familiarity with, as countries you can study through these frameworks as the class progresses. Comparative varies very widely methodologically and one of our tasks is to assess the appropriateness of the various methods employed in this research. Here again, familiarity with a couple of cases will help you perform these assessments.

Thursdays, 1:00 p.m. – 4:00 p.m.
215 Boucke Building

Fall 2023
Graduate Seminar Descriptions
Department of Political Science

PLSC 560
International Relations: Theory and Methodology
Professor Xun Cao

This course is the field seminar in international relations, aimed at providing an introduction to major theories of international relations and exposing students to contemporary research in the field. In this seminar, you will learn to understand and evaluate critically academic literature in international relations, as well as become familiar with major themes in international relations research. We will discuss important theoretical approaches used in the study of international politics and explore the manner in which social scientific research is conducted. The broad overview of theories and research topics in this course should enable you to identify areas of interest that you can further pursue in subsequent graduate courses and in independent research. This course is designed for graduate students who are planning to pursue careers in international relations or political science research; we will not focus on current events or issues in particular world regions.

Thursdays, 9:00 a.m. – 12:00 p.m.
143 Stuckeman Building

Fall 2023
Graduate Seminar Descriptions
Department of Political Science

PLSC 597.002

Machine Learning

Professor Bruce Desmarais

Political science research is now regularly conducted using data that is larger and more complex than the data for which conventional statistical tools were designed. Examples of such data include population-scale information on individual-level consumer and political behavior, data streams collected from social media, and archives of electronic government records. There are three fundamental ways in which fine-grained, voluminous, and high-dimensional data require a set of methods that are more flexible than the conventional toolkit of quantitative social science. First, the data is inherently more complex, making it difficult to specify an adequate statistical model from theory alone. Second, the data is high dimensional, meaning there are more variables than one can include in conventional statistical models. Third, the data contains adequate information to make accurate predictions about unseen data (e.g., forecasts). These three features demand a statistical toolkit that is capable of learning model structure, selecting variables, and producing accurate predictions, which are all capabilities of foundational machine learning methods. In this course, we will cover foundational machine learning, with a focus on application to problems in political science.

Mondays, 9:00 a.m. – 12:00 p.m.

006 Sparks Building

Fall 2023
Graduate Seminar Descriptions
Department of Political Science

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
