PLSC 503

Multivariate Analysis for Political Research

Professor Christopher Zorn

This is the second (full) course in quantitative methods in Penn State's political science Ph.D. program. The course introduces students to regression-type models for the analysis of quantitative data and provides a basis of knowledge for more advanced statistical methods. The course assumes basic math literacy, including familiarity with probability theory, properties of estimators, rudimentary calculus, and linear algebra. The bulk of the course will focus on general models of the form $Y = f(XB) + e$, and will include discussions of the mathematical bases for such models, their estimation and interpretation, model assumptions and techniques for addressing violations of those assumptions, and topics related to model specification and functional forms. Under this general framework, we will also provide a very brief overview of regression models for binary, ordered, unordered, and event count variables.

Mondays, 9:00 a.m. – 12:00 p.m.

370 Willard Building

PLSC 505

Time Series

Professor Suzanna Linn

This course examines statistical techniques for analyzing social processes that evolve over time, introducing students to time series methods and their applications in political science. The course begins with univariate models, unit root testing, and exogeneity concepts, as these foundational topics determine the appropriate methods and models for a given dataset. It then progresses to single-equation models applicable when weak exogeneity is plausible, covering stationary data, unit root data, and cases of uncertainty. The course concludes with systems models for situations where weak exogeneity is unreasonable, addressing both stationary and unit root cases. Throughout, students learn to assess long-run relationships, equilibria, and dynamic adjustments in time series data. The course emphasizes practical application, encouraging students to use their own data for assignments, while also covering necessary theoretical foundations. Prerequisites include a solid background in probability and regression analysis. Panel data methods are not included.

Thursdays, 2:30 p.m. – 5:30 p.m.

123 Pond Lab

PLSC/SOC 518 (Crosslisted)

Survey Design II

Professor Eric Plutzer

Survey methodology is concerned with (a) collecting data by asking people questions, and (b) aggregating those answers in ways that generate valid and reliable inferences about a population of individuals. This class focuses on data collection (while PLSC/SOC 519 focuses on data analysis).

The majority of this seminar will focus on questionnaire design as a special case of scientific measurement, viewed through the lens of the Total Survey Error (TSE) framework. Other topics will include survey research ethics, sample recruitment and panel study retention, survey experiments, and methods effects due to mode of data collection.

Tuesdays, 6:00 p.m. – 9:00 p.m.

208 Ford Building

PLSC 555

Comparative Regimes

Professor Joseph Wright

This course examines authoritarian (non-democratic) rule. It will be most beneficial for students who have completed an introductory sequence of graduate statistical methods courses and a course in game theory. The seminar begins with a brief introduction to classical theories of authoritarian rule, and then surveys the current literature on comparative authoritarianism. The course covers: measures and typologies of authoritarian regimes; formal theories of authoritarian rule; political institutions (legislatures, parties, and elections) in authoritarian regimes; the consequences of authoritarian rule for growth and investment; protest in non-democratic settings; and authoritarian regimes in international relations research (conflict). Students are expected to produce original research on a topic related to authoritarian politics.

Wednesdays, 9:00 a.m. – 12:00 p.m.

359 Health and Human Development Building

PLSC 563

International Political Economy

Professor Boliang Zhu

This is an advanced graduate course on international political economy (IPE). The goals of the course are to (i) review recent research in IPE, (ii) prepare doctoral students for the comprehensive exam in International Relations in general and more specifically, International Political Economy and (iii) encourage students to form original ideas for promising research projects in the area of international political economy. This seminar focuses on key issues in international political economy, such as trade, foreign direct investment, international finance and monetary policy, foreign aid, development, and international institutions and cooperation. We will investigate the role of international institutions in economic relations and the effect of domestic politics on international cooperation in the areas of trade, investment and finance, as well as attempt to identify the "state of the art" in international political economy.

Wednesdays, 1:25 p.m. – 4:24 p.m.

025 Burrowes Building

PLSC 597.001

Political Psychology

Professor Peter Hatemi

(Wo)Man is by Nature a Political Animal" (see Aristotle). This course will present aninterdisciplinary approach to the study of political psychology. We will draw on work in social, developmental and clinical psychology, as well the cognitive neurosciences, biological anthropology, genetics, evolution and behavioral economics to examine existing dilemmas. Political psychology is not subfield specific and has a foundation in international relations as much as it does in the so called "American" subfield of public opinion. Specifically, we will cover the epistemological debates, theoretical and empirical approaches to the study of human behavior as it relates to political outcomes. Topics will include how political elites and the mass publics think and act, the reasoning processes that come into play when human beings try to make sense of their political world, and emotions such as fear and lust that are an inseparable part of human reasoning. Individual differences in cognition and emotion are often categorized by differences in personalities, and thus we will explore how these inform political judgments as well. We will uncover the sources of prejudices and hatreds that lead to conflict and acts of brutality and wars. We will address political identity, cooperation, risk and conflict. We will look at leaders and leadership, motivation, sex, mating, competition and intergroup behavior. We will study these topics through the field's core theoretical approaches, from the behavioral revolution to the neurobiological revolution. The subfield of political psychology has grown rapidly, and any scholar who has an interest in how humans make decisions and act, whether you are focused on public opinion, domestic politics, or international studies, being aware of and integrating the discoveries from psychological research is no longer optional, but required to converse with the greater academy.

Tuesdays, 2:30 p.m. – 5:00 p.m.

120 Thomas Building

SoDA 501

Big Social Data: Approaches and Issue

Professor Bruce Desmarais

Interdisciplinary integration of computational, informational, statistical, visual analytic, and social scientific approaches to the creation of big social data. This course addresses computational, informational, statistical, visual analytic, and social scientific approaches to the creation of 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). Examples include text, image, audio, video, intensive spatial and/or longitudinal data, data with complex network, hierarchical and/or other relational information, data from distributed sensors and mobile devices, digitized archival data, and data exhaust from sources like social media. Possible topics include sources of social data, data structures and formats for social data, data collection and manipulation technologies, data linkage and alignment, ethics and scientific responsibility in human subjects research, experimental and observational data collection design for causal inference, measurement of latent social concepts, reliability and validity, search and information retrieval, nonrelational and distributed databases, and standards for data preservation and sharing.

Thursdays, 10:00 a.m. – 1:00 p.m.

Susan Welsh Building – Soda Grad Space