POLS 509: Linear Model
Zachary Peskowitz, Monday, 1:00pm – 4:00pm, MAX: 8

Content: Political Science 509 is an introduction to probability and statistics for Political Science PhD students. In the first half of the course, we will cover the foundations of probability theory, properties of random variables, asymptotic approximations, methods for developing and evaluating statistical estimators, and hypothesis testing. The second half of the course will develop the linear regression model with a focus on its assumptions, statistical properties, inference, and diagnostics. An additional goal of the course is to improve students' statistical computing skills through in-class exercises and problem sets.

Text:
Duxbury.

POLS 512: International Conflict
Danielle Jung, Wednesday 1:00pm – 4:00pm, MAX: 8

Content: This class covers an array of topics related to conflict in the international system and politics, including: alliances, war termination, the relationships between domestic politics and international conflict, counterinsurgency, international institutions, the bargaining model of war, and others. The course is permission-only for students other than political science graduate students. Grading is based on class participation, short papers, and a long research paper.

No textbooks required.
**POLS 513 Intro to Game Theory**  
John Patty, Monday & Wednesday 10:00am – 11:15am, MAX: 10

**Content:** The focus of the class will be on the basic tools and solution concepts of game theory. We will also consider the usefulness of formal theory and its appropriate/inappropriate application.

**Text:**  
Tadelis, Steven. 2012.  
Game Theory: An Introduction  
ISBN: 9780691129082  
Princeton University Press

**POLS 515 Applied Game Theory**  
Clifford Carrubba, Monday 1:00pm – 4:00pm, MAX 8

**Content:** This course is designed to develop student ability to define and solve a formal model. There are no specific assigned readings for the class. Rather, weekly sessions will revolve around student presentations and discussion. In the first part of the course students will define a research question and formal model. In the second part they will solve the models. In the third part they will write up the proofs, a paper around the model and develop presentational skills. POLS 513 and 514 are mandatory prerequisites.

*No textbooks required.*

**POLS 540 American Government & Politics**  
Alex Bolton, Tuesday 8:30am – 11:30am, MAX 8

**Content:** General survey of classic and recent research on major questions in American politics research. Topics include public opinion, mass media, voting and participation, elections, institutional theories, Congress, the Presidency, the bureaucracy, the judiciary, and inequality. The development of areas of research will be stressed, along with the theoretical frameworks dominant in substantive areas of inquiry.

*No textbooks required.*
POLS 585 SEM: Variable Topics Seminar
Topic/Title: Design/Analysis Experiments
Natalia Bueno, Monday & Wednesday 4:30pm – 5:45pm, MAX 6
(Cross-listed with QTM 491, MAX 6)

Content: The use of experiments has grown notably across the social sciences, with the promise of delivering simple, transparent, and replicable causal inference. This course will discuss the design, analysis, and interpretation of introductory and advanced experimental designs. The first part of the course covers the theory and logic of experiments. The second part covers issues and challenges in implementing experiments that deliver on their promises. Topics include: models of potential outcomes, blocking and covariate adjustment, non-compliance, attrition, heterogeneous treatment effects, interference, mediation, and ethics. Assignments will focus on developing practical skills for the implementation of experiments in real research settings.

Text:
New York: W. W. Norton

POLS 585 SEM: Variable Topics Seminar
Topic/Title: Politics of Race and Gender
Beth Reingold, Thursday 1:00pm – 4:00pm, MAX 5
(Cross-listed with WGS 585, MAX 5)

Content: Gender and race interact and intersect in complex and confounding ways, yet they have a persistently powerful influence upon politics and society. This seminar will introduce students to major theoretical perspectives, debates, controversies, and research findings in the empirical study of gender, sexuality, race, ethnicity, and politics primarily in the United States. Depending on student interest, we may also explore related research in international relations and comparative politics.

Readings will likely include a number of earlier, foundational works as well as more recent research that builds upon, complements, and/or challenges these foundational studies (and other readings)
POLS 585 SEM: Variable Topics Seminar
Topic/Title: Analysis of Political Institutions
Tom Clark, Tuesday 1:00pm – 4:00pm, MAX 8

Content: This course is designed to introduce students to the theoretical problems that institutions address and substantive illustrations of those problems. The class begins with an overview of current approaches to research on institutions and continues with a more detailed focus on specific socials problems institutions are designed to solve, such as delegation, collective action, and preference aggregation. For each theoretical problem, the course will cover substantive applications from across the various sub fields in political science. Additional issues, such as institutional change and endogeneity, not covered in detail will be introduced at the end of the course.

No textbooks required.

POLS 585 SEM: Variable Topics Seminar
Topic/Title: Social Choice
Maggie Penn, Monday 1:00pm – 4:00pm (Cross-listed with QTM 490, combined MAX: 15)

Content: This course provides an introduction to the field of social choice theory. Social choice utilizes axiomatic methods to analyze the process of collective decision-making. It takes a set of people with heterogeneous preferences as an input and examines ways in which we can construct a "group preference" from those inputs. The construction is achieved through the use of a preference aggregation rule. The goal of the course is to examine the properties of different types of rules, and to characterize rules that yield desirable collective outcomes. The elegance and power of social choice-theoretic results such as Arrow’s impossibility theorem, the McKelvey-Schofield chaos theorems, the Gibbard-Satterthwaite theorem, and the Plott conditions have shaped the way that social scientists think about decision-making procedures and outcomes. There are no formal prerequisites for this course, but prior experience with a proof-based math course will be helpful. Students should be open to learning and utilizing mathematical notation and proof techniques.

Texts: