

# PS 232-B: Formal Models in American Politics

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Location: Wheeler 20  
Time: M 2:00 – 5:00 pm  
Office hours: W 2:00 – 4:00

This class presents an advanced treatment of noncooperative game theory and its application to the study of American politics. The purposes are to solidify students' grasp of game theory as a modeling tool in political science, and to enable students to use formal models to make innovative substantive arguments in their areas of research.

The course is organized around major families of models widely used by modelers who study American politics (though they would probably be useful in other fields, particularly in the analysis of "highly institutionalized" environments). Within each family, readings draw from the study of Congress, the bureaucracy, the presidency, courts, voters, etc., as appropriate. This approach involves tradeoffs: many interesting models develop an original framework and do not fit into one of these canonical families. On the other hand, mastering the canonical models is a good way to learn how to develop an extension for one's own work, as well as to become conversant with the literature.

**REQUIRED SKILLS.** Students enrolled for credit must have some prior graduate-level training in game theory at the level of PS232-A or higher, and facility with multivariate calculus, basic probability theory, and basic set theory and logic at the level of PS230 or higher. Some facility with developing a formal proof of a logical proposition is very helpful. It is impossible to write a paper with an original model without this skill.

## Reading and Class Sessions

Readings come primarily from journal articles. The articles on the syllabus are not intended to be a comprehensive list of applications of a particular modeling approach. Some are classics, some are more recent, but all are included because they are (1) good illustrations of a particular modeling approach, and (2) amenable to extension by students at an intermediate level.

Our pace through the topics and readings will be adjusted liberally. I will make announcements in class or via email about readings that students should tackle in advance of the next week's class session. Besides the first session, it is important to do readings before the class in which we cover them, and also after that class as well. It is rare that intro-intermediate students understand what is happening in a model on the first pass through.

## Grades

The course grade will be based on a mix of class participation and a final paper.

Class sessions, while primarily composed of lectures, will require extensive student involvement and participation. This will take the form of critique of the link between a model and substantive issue, discussion of technical issues in modeling, and most of all simply informed questions from students.

At the end of the semester each student must submit a paper that uses formal modeling to explore some issue in his or her substantive field of research. The paper should be in the style of a conference paper or journal article. It should have a beginning, middle, and end. The model must be in the middle somewhere. The paper may develop a new model (or extend an existing one), execute an empirical test of an existing formal model, or both.

## Sequence of Topics and Readings

**Topic 1: Preliminaries.** Preferences, games, equilibrium concepts.

Readings:

- *Political Game Theory*<sup>1</sup> 2.0–2.5
- *Political Game Theory* 3.0–3.2.

**Topic 2: Agenda Setting.** The Romer-Rosenthal model.

Readings:

- Thomas Romer and Howard Rosenthal. Political Resource Allocation, Controlled Agendas, and the Status Quo. *Public Choice* (1978).
- Christophe Crombez, Timothy Groseclose, and Keith Krehbiel. Gatekeeping. *JOP* (2006).
- Sean Gailmard and Thomas Hammond. Intercameral Bargaining and Intracameral Organization in Legislatures. *JOP* (2011).
- Keith Krehbiel. Selections from *Pivotal Politics* (1998).
- Keith Krehbiel. Institutional and Partisan Sources of Gridlock: A Theory of Divided and Unified Government. *JTP* (1996).
- Gary Cox and Mathew McCubbins. Selections from *Setting the Agenda* (2005).
- Terry Moe and William Howell. The Presidential Power of Unilateral Action. *JLEO* (1999).

**Topic 3: Cheap Talk.** The Crawford-Sobel model.

Readings:

- Joseph Harrington. Chapter 12 from *Games, Strategies, and Decisions*.
- Vincent Crawford and Joel Sobel. Strategic Information Transmission. *Econometrica* (1982).
- Thomas Gilligan and Keith Krehbiel. Collective Decision Making and Standing Committees: An Informational Rationale for Restrictive Amendment Procedures. *JLEO* (1987).
- Marco Battaglini. Multiple Referrals and Multidimensional Cheap Talk. *Econometrica* (2002).
- Sean Gailmard and John Patty. Chapters 5-8 of *Learning While Governing: Information, Accountability, and Executive Branch Institutions* (2012).
- John Patty. The Politics of Biased Information Transmission. *JOP* (2009).

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<sup>1</sup>Entries from *Political Game Theory* list chapter followed by section; e.g. 2.5 is chapter 2, section 5; 2.0 is the introductory material in chapter 2 before section 1.

**Topic 4: Discretion and Expertise..**

Readings:

- David Epstein and Sharyn O'Halloran. Administrative Procedures and Agency Discretion. *AJPS* (1994).
- Sean Gailmard. Expertise, Subversion, and Bureaucratic Discretion. *JLEO* (2002).
- Craig Volden. A Formal Model of the Politics of Delegation in a Separation of Powers System. *AJPS* (2002).
- Jonathan Bendor and Adam Meirowitz. Spatial Models of Delegation. *APSR* (2004).
- Sean Gailmard and John Patty. 2007. Slackers and Zealots: Civil Service, Policy Discretion, and Bureaucratic Expertise. *AJPS* (2007).
- Wouter Dessein. Authority and Communication in Organizations. *Review of Economic Studies* (2002).
- Sean Gailmard. Discretion Rather Than Rules: Choice of Instruments to Constrain Bureaucratic Policy-Making. *Political Analysis* (2009).
- Jeff Lax. Political Constraints on Legal Doctrine: How Hierarchy Shapes the Law. *JOP* (forthcoming).
- Nolan McCarty. The Appointments Dilemma. *AJPS* (2004).

**Topic 5: Principal-Agent Models.**

Readings:

- John Ferejohn. Incumbent Performance and Electoral Control. *Public Choice* (1986).
- Torsten Persson, Gerard Roland, and Guido Tabellini. Separation of Powers and Political Accountability. *QJE* (1997).
- Brandice Canes-Wrone, Michael Herron, and Kenneth Shotts. Leadership and Pandering: A Theory of Executive Policymaking. *AJPS* (2001).
- Brandice Canes-Wrone and Kenneth Shotts. When Do Elections Encourage Ideological Rigidity? *APSR* (2007).
- Kenneth Shotts and Scott Ashworth. Challengers, Democratic Contestation, and Electoral Accountability. SSRN working paper (2011).
- Ethan Bueno De Mesquita and Matthew Stephenson. Regulatory Quality under Imperfect Oversight. *APSR* (2007).
- Sean Gailmard. Multiple Principals and Oversight of Bureaucratic Policymaking. *JTP* (2009).
- Sean Gailmard and John Patty. A Formal Model of Notice and Comment Rulemaking with Judicial Review. Working paper (2012).
- Cliff Carrubba and Tom Clark. Rule Creation in a Political Hierarchy. Working paper, Emory University (2011).

**Topic 6: Signaling Games.**

Readings:

- Charles Cameron. Selections from *Veto Bargaining* (2000).
- Tom Clark and Cliff Carrubba. A Theory of Opinion Writing in a Judicial Hierarchy. *JOP* (forthcoming).
- Matthew Stephenson. A Costly Signaling Theory of "Hard Look" Judicial Review. *Administrative Law Review* (2006).
- Sanford Gordon and Catherine Hafer. Flexing Muscle: Corporate Political Expenditures as Signals to the Bureaucracy. *APSR* (2005).

**Topic 7: Voting.**

Readings:

- Thomas Palfrey and Howard Rosenthal. Voter Participation and Strategic Uncertainty. *APSR* (1985).
- Timothy Feddersen. Rational Choice Theory and the Paradox of Not Voting. *Journal of Economic Perspectives* (2004).
- Thomas Palfrey and David Levine. The Paradox of Voter Participation: A Laboratory Study. *APSR* (2007)
- Timothy Feddersen, Sean Gailmard, and Alvaro Sandroni. Moral Bias in Large Elections. *APSR* (2009).
- David Austen-Smith and Jeffrey Banks. Information Aggregation, Rationality, and the Condorcet Jury Theorem. *APSR* (2006).
- Timothy Feddersen and Wolfgang Pesendorfer. Convicting the Innocent: The Inferiority of Unanimous Jury Verdicts under Strategic Voting. *APSR* (1998).
- Timothy Feddersen and Wolfgang Pesendorfer. The Swing Voter's Curse. *AER* (1996).

**Topic 8: Bargaining.**

Readings:

- *Political Game Theory* 9.0–9.5, 10.0–10.4, 7.8
- David Baron and John Ferejohn. Bargaining in Legislatures. *APSR* (1989).
- David Baron. Majoritarian Incentives, Pork Barrel Programs, and Procedural Control. *AJPS* (1991).
- Jeffrey Banks and John Duggan. A General Bargaining Model of Legislative Policymaking. *QJPS* (2006).
- Nolan McCarty. Proposal Rights, Veto Rights, and Political Bargaining. *AJPS* (2000).
- Charles Cameron and Jeff Lax. Bargaining and Opinion Assignment on the U.S. Supreme Court. *JLEO* 2007.