University of Rochester Political Science

Psc 408   Prof. Mark Fey
Positive Political Theory   Spring 2007

Syllabus

This course is part of a rigorous introduction to the main concepts and results in positive political theory. It is the second half of a two course sequence consisting of Psc 407 and Psc 408. The sequence concentrates on the theoretical models used in contemporary political science, and provides the mathematical background necessary to fully understand them.

The year-long sequence of Psc 407 and Psc 408 is designed to be both a rigorous foundation for students planning on taking further courses in the positive political theory field and a self-contained overview of the field for students who do not intend to do additional coursework in the field. This course will focus on the basics of game theory, which analyzes individual behavior in strategic situations. It will also cover the mathematical tools required to express the theory. Examples and applications will be drawn from several different areas in political science, including the American Congress, voting, international relations, political economy, and law.

Naturally, Psc 407 is the prerequisite for this course. Students should have a good working knowledge of the mathematical topics covered there.

Course Meetings: Lectures for the course will be Mondays and Wednesdays at 11:05 in Harkness 329.

Course Work: There will be some problem sets. The exact meaning of "some" will be determined as we go, but expect assignments to be roughly every other week. There will also be a midterm and final exam.

Course Readings: I will make use of two of the books that were used in Psc 407:

- Simon and Blume, *Mathematics for Economists*

- Ordeshook, *Game Theory and Political Theory*

There is one required text for the course:

- Osborne, *An Introduction to Game Theory*

In addition, there are is one recommended text:

- Aliprantis and Chakrabarti, *Games and Decision Making*

Additional readings will be distributed during the semester.

Schedule: Below is the list of topics and the scheduled readings for the course. Naturally, this schedule may change as the semester unfolds.

Topic 0 Overview and logistics of the course

Topic 1 Constrained Optimization
local and global, first and second order necessary conditions, sufficient conditions, constrained optimization and Lagrange's method, comparative statics

- Simon and Blume, chs. 17–19, 21.5

- Aliprantis and Chakrabarti, secs. 1.1–1.4

- James Alt and John Woolley, "Reaction Functions, Optimization, and Politics: Modelling the Political Economy of Macroeconomic Policy," *American Journal of Political Science* 26 (1982), 709–740 (JSTOR)

- Peter Aranson and Melvin Hinich, "Some Aspects of the Political Economy of Election Campaign Contribution Laws," *Public Choice* 34 (1979) 435–461

- Will Moore, "The Repression of Dissent: A Substitution Model of Government Coercion," *The Journal of Conflict Resolution* 44:1 (2000) 107–127 (JSTOR)

Topic 2 Manipulability
misrepresentation of preferences, Gibbard-Satterthwaite theorem, agenda control

- Ordeshook, sec. 2.4

- Jean-Pierre Benoît, "The Gibbard-Satterthwaite Theorem: A Simple Proof," *Economics Letters* 69 (2000) 319–322 (link)

- William Riker, "The Manipulation of Social Choices: Strategic Voting," Chap. 6 in *Liberalism Against Populism,* Waveland Press, 1982

- Hervé Moulin, "On Strategy-Proofness and Single-Peakedness," *Public Choice*, 35 (1980) 437-455

Topic 3 Expected Utility
    lotteries, expected utility, risk aversion, paradoxes, turnout

- Ordeshook, sec. 1.5–1.7

- Simon and Blume, appendix A5

- Aliprantis and Chakrabarti, secs. 1.5–1.6

- Mark Machina, "Choice Under Uncertainty: Problems Solved and Unsolved," *The Journal of Economic Perspectives*, 1:1 (1987) 121–154. (especially pp. 121–127) (JSTOR)

- William Riker and Peter Ordeshook, "A Theory of the Calculus of Voting," *American Political Science Review*, 62:1 (1968) 25–42. (JSTOR)

- James Morrow, "A Continuous-Outcome Expected Utility Theory of War," *Journal of Conflict Resolution*, 29:3 (1985) 473–502. (JSTOR)

Topic 4 Strategic Form Games
    weak and strong dominance, IEWDS, pure strategy Nash equilibrium, mixed strategies, zero-sum games, applications, continuous strategy spaces

- Osborne, chs. 2–4

- Ordeshook, sec. 3.5, 3.6, 3.8, 4.1–4.5

- Aliprantis and Chakrabarti, ch. 2

- Adam Brandenburger, "Knowledge and Equilibrium in Games," *The Journal of Economic Perspectives*, 6:4 (1992) 83–101. (JSTOR)

- Jeffrey Banks and D. Roderick Kiewiet, "Explaining Patterns of Candidate Competition in Congressional Elections," *American Journal of Political Science*, 33:4 (1989) 997–1015. (JSTOR)

- Barbara Geddes, "A Game Theoretic Model of Reform in Latin American Democracies," American Political Science Review, Vol. 85, No. 2. (Jun., 1991), pp. 371-392. (JSTOR)

- George Tsebelis, "The Abuse of Probability In Political Analysis: The Robinson Crusoe Fallacy," American Political Science Review, Vol. 83, No. 1. (Mar., 1989), pp. 77-91. (JSTOR)

- Terry Sullivan, "Bargaining with the President: A Simple Game and New Evidence," *American Political Science Review*, 84:4 (1990) 1167–1195. (JSTOR)

- Jack Hirshleifer, "Anarchy and Its Breakdown," *Journal of Political Economy*, 103:1 (1995) 26–52. (JSTOR)

- James Snyder, "Election Goals and the Allocation of Campaign Resources," *Econometrica*, 57:3 (1989) 637–660. (JSTOR)

Topic 5 Extensive Form Games
strategies in the extensive form, information sets, backward induction, subgame perfection, credible threats, sophisticated voting in agendas

- Osborne, chs. 5–7

- Ordeshook, secs. 3.1–3.3, 3.7, 3.9, 6.4

- Aliprantis and Chakrabarti, chs. 3 & 4

- Philip Reny, "Rationality in Extensive-Form Games," *The Journal of Economic Perspectives*, 6:4 (1992) 103–118. (JSTOR)

- Robert Clinton, "Game Theory, Legal History, and the Origins of Judicial Review: A Revisionist Analysis of Marbury v. Madison," *American Journal of Political Science*, 38:2 (1994) 285–302. (JSTOR)

- Wolfgang Leininger, "Escalation and Cooperation in Conflict Situations: The Dollar Auction Revisited," *The Journal of Conflict Resolution*, 33:2 (1989) 231–254. (JSTOR)

- Barry Weingast, "The Political Foundations of Democracy and the Rule of Law," *American Political Science Review*, 91:2 (1997) 245–263. (JSTOR)

- Kenneth Shepsle and Barry Weingast, "Uncovered Sets and Sophisticated Voting Outcomes with Implications for Agenda Institutions," *American Journal of Political Science*, 28:1 (1984) 49–74. (JSTOR)

Topic 6 Applications
   Coordination Collective action, public goods, and cooperation

   - Osborne, chs. 14–16

   - Ordeshook, ch. 5

   - Aliprantis and Chakrabarti, ch. 7

   - David Laitin, "The Tower of Babel as a Coordination Game: Political Linguistics in Ghana," *American Political Science Review*, 88:3 (1994) 622–634. (JSTOR)

   - Gerry Mackie, "Ending Footbinding and Infibulation: A Convention Account," *American Sociological Review*, 61:6, (1996), 999–1017 (JSTOR)

Topic 7 Voting Models
   strategic voting, issue-by-issue, setter model

   - Ordeshook, secs. 6.1–6.3

   - Howard Rosenthal, "The Setter Model," Chap. 9 in *Advances in the Spatial Theory of Voting*, Cambridge: Cambridge Univ. Press, 1990

   - Tom Romer and Howard Rosenthal , "Political Resource Allocation, Controlled Agenda. and the Status Quo," *Public Choice*, 33 (1978) 27-43.

   - Douglas Dion and John Huber, "Procedural Choice and the House Committee on Rules," *Journal of Politics*, 58:1 (1996) 25–53 (JSTOR)

   - Randall Calvert, Mathew McCubbins, and Barry Weingast, "A Theory of Political Control and Agency Discretion," *American Journal of Political Science*, 33:3 (1989) 588–611. (JSTOR)

   - Keith Krehbiel, "Paradoxes of Parties in Congress," *Legislative Studies Quarterly*, 24:1 (1999) 31–64. (JSTOR)

Topic 8 Bargaining
   alternating offers, Nash bargaining

   - Ariel Rubinstein, "Perfect Equilibrium in a Bargaining Model," *Econometrica*, 50:1 (1982) 97–110. (JSTOR)

- David Baron and John Ferejohn, "Bargaining in Legislatures," *American Political Science Review*, 83 (1987) (JSTOR)

- John Nash, "The Bargaining Problem," *Econometrica* 18:2 (1950) 155–162. (JSTOR)

Topic 8 Repeated Games

- Rui de Figueiredo, "Electoral Competition, Political Uncertainty, and Policy Insulation," *American Political Science Review*, 96: 2 (2002) 321-333. (JSTOR)

- James Fearon and David Laitin, "Explaining Interethnic Cooperation," *American Political Science Review* 90:4 (1996) 715–735. (JSTOR)