

Game Theory II  
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**Pre-requisites**

Game Theory I and Math for Political Scientists (or permission of instructor)

**Course Requirements**

In order to maximize the benefits from taking this course, it is essential that students treat the assignments as learning tools, alongside lectures and textbooks. Toward this end, I strongly encourage the students to work through the assigned problems on their own *before* comparing notes with classmates.

There will be regular assigned problem sets. Students will also be required to complete one final project at the end of the course.

**Some required readings:**

Acemoglu, Daron and James A. Robinson. 2001. "A Theory of Political Transitions." *American Economic Review* 91, pp 938-963.

Ashworth, Scott, and Ethan Bueno de Mesquita. 2004a. "Monotone Comparative Statics In Models Of Politics: A Method For Simplifying Analysis And Enhancing Empirical Content." Washington University Mimeo.

Ashworth, Scott, and Ethan Bueno de Mesquita. 2004b. "Constituency Service with Electoral and Institutional Variation." Washington University Mimeo.

Austen-Smith, David. 1990. "Information Transmission in Debate." *American Journal of Political Science*, Vol. 34, No. 1, pp. 124-152.

Banks, Jeffrey S. 1990. "Equilibrium Behavior in Crisis Bargaining Games." *American Journal of Political Science*, vol. 34, no. 3, pp. 599-614.

Banks, Jeffrey S. and Randall L. Calvert. 1992. "A Battle-of-the-Sexes Game with Incomplete Information." *Games and Economic Behavior*, pp. 347-372.

Battaglini, Marco. 2002. "Multiple Referrals and Multidimensional Cheap Talk." *Econometrica* vol. 70, pp. 1379-1401.

Gilligan, Thomas and Keith Krehbiel. 1987. "Collective Decision-Making and Standing Committees: An Informational Rationale for Restrictive Amendment Procedures." *Journal of Law, Economics, and Organization* vol. 3, pp. 145-93.

Hafer, Catherine. 2005. "Coordination and Standoff." NYU Mimeo.

Rubinstein, Ariel. 1991. "Comments on the Interpretation of Game Theory." *Econometrica* 59, pp. 909-924.

Vives, Xavier. 1999. *Oligopoly Pricing: Old Ideas and New Tools*. Cambridge: MIT Press, Ch. 2.

### **Recommended Game Theory Texts**

Although you will be held responsible only for the material in the lectures and in the assigned readings you may wish to consult in your preparation other game theory texts, in particular those listed below. Which of these additional texts is best suited to your needs should be a function of your background knowledge and how much you hope to do with game theory.

Banks, Jeffrey S. 1989. *Signaling Games in Political Science*. Harwood Academic Publishers.

This book is somewhere between a monograph and a text on signaling games. It has a very clear and systematic exposition and a substantial number of political science examples.

Fudenberg, David and Jean Tirole. 1991. *Game Theory*. Cambridge: MIT Press.

Although it is somewhat dated, this book is still the most comprehensive survey of game theory available. It is a great reference book for anyone who intends to write game-theoretic models, but it makes substantial demands on the analytical skills of the readers and often expects that the basic material is already known.

Gibbons, Robert. 1992. *Game Theory for Applied Economists*. Princeton: Princeton University Press.

This is a clear and intuitive introductory text with a very good section on signaling games.

McCarty, Nolan and Adam Meirowitz. *Political Game Theory*. Manuscript (Princeton University).

This introductory text incorporates many detailed examples from the political science literature. It also includes foundational material on utility theory and a chapter on mechanism design.

Myerson, Roger. 1991. *Game Theory: Analysis of Conflict*. Cambridge: Harvard University Press.

This book presents the most systematic and nuanced, but mathematically unsparing, treatment of the subject. It is the best textbook for people who are very comfortable with mathematical tools.

Rasmussen, Erik. 1994. *Games and Information: An Introduction to Game Theory*. Oxford: Basil Blackwell.

This book is less analytically demanding than Myerson's or Fudenberg and Tirole's. Its balance of formal rigor and conceptual intuition is comparable to Gibbons'.

**Topics:**

1. Costly Signaling Games (Review)

Gibbons, pp. 183-210, 233-244

Banks (1989), pp. 1-26

2. Cheap Talk

Gibbons, pp. 210-218

Banks (1989), pp. 23-26, 48-57

Austen-Smith (1990)

Gilligan and Krehbiel (1987)

Battaglini (2002)

3. Sequential Equilibrium

TBA

4. Incentive Compatibility and the Revelation Principle

Gibbons, pp. 164-168

McCarty and Meirowitz, pp. TBA

Banks (1990)

Banks and Calvert (1992)

5. Purification Theorem

TBA

6. Review

Hafer (2005)

7. Monotone Comparative Statics and Supermodularity

Vives (1999)

Ashworth and Bueno de Mesquita (2004a and b)

TBA

8. Markov-Perfect Equilibrium

Acemoglu and Robinson (2001)

9. What Makes a Game-Theoretic Model Good?

Rubinstein (1991)