Analytical Politics I:
Strategic and Theoretical Foundations

Fall 2018

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Course website The course has a website at canvas.uchicago.edu

Course Description This course has four objectives, three substantive and one methodological. The three major substantive themes of the course are (i) the normative foundations of policy making, (ii) how strategic interactions give rise to social dilemmas that create room for public policy to improve social welfare, and (iii) how technological, political, and institutional factors constrain policymakers and sometimes prevent good policies from being enacted.

Methodologically, the course introduces basic game theory. Game theory is the mathematical tool used to study situations of strategic interdependence, which is most of life. As such, it is critical for understanding the substantive issues discussed above. In addition, understanding basic game theory is a valuable skill in its own right for policy professionals. It helps us predict and understand how people and organizations will behave in response to changes in the policy environment.

Course Requirements The course has three requirements: participation, problem sets, and two exams.

- **Participation** You are expected to do the readings and attend class. There will also be sections led by the TAs. Attendance at these is optional but strongly encouraged.
- **Problem Sets** There will be five problem sets during the quarter. They are due at the beginning of class on the date indicated on the syllabus. You will have a week for each problem set. A few guidelines for the problem sets:
  - We strongly encourage you to work in a problem set group. If you work in a group, you may turn in a single problem set for the whole group. **Groups that turn in a joint problem set can be no larger than four people.** If you turn in an individual problem set, it may not be identical to another student’s problem set.
  - For the sake of your heroic TAs, who check huge numbers of problem sets at a time, please write your answers to problems in a linear, concise, and readable form. This will often mean you have to rewrite your answer after solving it. Doing so is an act of kindness.
  - No late assignments will be accepted. If you have to miss class the day an assignment is due, please coordinate turning it in early or electronically with the head TA.
- **Exams** There will be two exams, and in-class midterm and a comprehensive final. TA sessions the week prior to exam will be review sessions. We will make at least one sample exam available a week prior to the exams.

Course Materials The required textbook for the course is

Ethan designed this book for this course, so we think it makes sense to use it. That said, he has no interest in profiting from your purchase of his book. To put his money where his mouth is, so to speak, he will donate to charity 100% of the royalties he receives from sales of this book to Harris School students. Which charity he donates to will be determined by the winners of some of this quarter’s in-class activities. (His only rule is that he has a veto over charities that he finds personally objectionable. In this event, he will simply ask the group to choose a different charity. This has never happened.)

For almost every topic, we also suggest alternative readings. These readings are not required, but are offered so you have access to at least one more take on these topics, should you be interested. The textbook also lists further readings on each topic. Many of the alternate readings come from the following books (which are not required course material):

- Steven Tadelis. *Game Theory: An Introduction*.

**Grades & Grading** Grading will be based on the course requirements as follows: final exam (40%), midterm exam (30%), problem sets (30%).

We will make every effort to return assignments and exams within a week.

If you believe that your grade on an assignment or exam question is incorrect or unfair, please submit your concerns in writing to the head TA within a week of the assignment or exam being returned. Fully summarize what you believe the problems are and why. The head TA and the TA responsible for the relevant question will respond in writing. If you still have concerns, you may submit them in writing to the professor, who will issue a final grade.

Core courses at the Harris School are graded on a rough curve. The basic target distribution is: *A* $\left[ \frac{1}{3}, \frac{1}{2} \right]$, *A*− $\left[ \frac{1}{2}, \frac{3}{4} \right]$, *B*+ $\left[ \frac{3}{4}, \frac{4}{5} \right]$, *B*− or lower $\left( \frac{4}{5} \right]$.

**Course Schedule**

**Introduction**

October 1/2 – Introduction and Start Normative Frameworks

*Read:* Preface and Introduction to PEPP textbook.


**Normative Foundations of Policy Making**

October 3/4 – Normative Frameworks

*Read:* Introduction to Part I and Chapter 1

*Recommended alternative reading:* Swift, parts I–III

October 8/9 – Pareto Concepts
Read: Chapter 3

October 10/11 – Pareto Concepts and Utilitarianism

Problem Set 1 Handed Out

Read: Chapter 3


Game Theory, Social Dilemmas, and Opportunities for Pareto Improvements

October 15/16 – Game Theory 1.1: Rationality, Games, and Strategy

Read: Appendix A

Recommended alternative reading: Tadelis, Chapters 1, 3, and 5.

October 17/18 – Game Theory 1.2: Nash Equilibrium

Problem Set 1 Due and Problem Set 2 Handed Out

Read: Appendix A

Recommended alternative reading: Tadelis, Chapters 1, 3, and 5.

October 22/23 – Externalities 1

Read: Introduction to Part II and Chapter 4.1–4.3

Recommended alternative reading: Shepsle, Chapters 9 and 10

October 24/25 – Externalities 2: Policy Interventions and the Theory of the Second Best

Problem Set 2 Due and Problem Set 3 Handed Out

Read: Chapter 4.4–4.7

October 29/30 – Coordination Problems

Read: Chapter 5


October 31/November 1 – Game Theory 2.1: Subgame Perfection

Problem Set 3 Due

Read: Appendix B.1–B.4

Recommended alternative reading: Tadelis, Chapter 7, 8

November 5/6 – Midterm

November 7/8 – Game Theory 2.2: Subgame Perfection

Problem Set 4 Handed Out

Read: Chapter B.6–B.7
Recommended alternative reading: Tadelis, Chapter 9

November 12/13 – Commitment Problems

Read: Chapter 6


November 14/15 – Summing Up

Problem Set 4 Due

Read: Summing Up Social Dilemmas

**Technological Governance Failures**

November 19/20 – Dynamic Inconsistency

Read: Introduction to Part III and Chapter 8


November 21/22 – Thanksgiving Break

November 26/27 – Strategic Adjustment

Problem Set 5 Handed Out

Read: Chapters 7

**Incentive-Based Governance Failures**

November 29/30 – Influence over Elected Officials

Read: Chapter 10

December 3/4 – When Bad Policy is Good Politics (with applications to economic development)

Problem Set 5 Due

Read: Chapter 11.1–11.2

Recommended alternative reading:


December 5/6 – Foreign Aid

Read: Chapter 11.3–11.4 and Summing Up

Recommended alternative reading:


December 11 – Final Exam (8 AM – 10:50 PM)