Economists assert enormous influence within the policy world. An economics professor serves as chair of the Federal Reserve Board. An economics professor is the senior economic policy adviser to the President. Economics professors make up the Council of Economic Advisers. Economists have maneuvered themselves into the center of the policy making process, and we aren’t going away anytime soon.

As such, nobody with a PhD in public policy can afford to be totally ignorant of economics. Even if you hate economists (which would not be altogether irrational), you will still have economists dogging your steps throughout your career, asking questions at seminars, giving papers, refereeing your journal articles, writing articles you need to read for your research, and generally making nuisances of ourselves.

The goal of RPAD 703 is to equip you with the tools to understand what economists are trying to say. We will focus particularly on tools related to game theory, one of the central tools that economists use and one that is often relevant in other fields, such as political science. Learning game theory will also include learning some core tools, such as probability theory, utility theory, and intertemporal discounting. We will also look at optimization and at some of the key concerns that economists bring to empirical work.

In RPAD 503, we have three main objectives:

1) to learn how economists think about the world and about research  
2) to become familiar with key methods of economic theory  
3) to gain reading comprehension skills in the economics literature

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1 Office Hours are drop-in, first-come first-served. If somebody else is already in my office when you arrive, make sure to let me know that you are there. It is a good idea to let me know that you intend to come to office hours in advance.
The work of the course will focus on close readings of economics papers and on developing key skills in economic modeling.

Note Well: this course will NOT train you in core microeconomic theory. If you want to learn to be a microeconomist, you need to take a course in the economics department.

Math

Economists use a lot of mathematics. To get a PhD in economics, you would need to know multivariate calculus, linear algebra, and something called “real analysis.” This level of math is NOT a prerequisite for the PhD in public administration, and therefore is NOT a prerequisite for this class. I’ll try to give you an intuitive grasp of what economists are doing when they use terms like “first order conditions,” but you should expect in the readings to encounter math beyond the level of your training. Part of the goal of this class is to give you enough intuition about what economists are trying to do that you can “read around” the technical math parts and still get the main point of an economics paper.

For the sake of problem sets, the exam, and lectures, I will assume that you are familiar with high school algebra at the level of solving systems of equations, such as

(1) \( Y + 3 = 4X + 1 \)
(2) \( Y - X = 5 \)

If you can’t solve the above problem,\(^2\) you should come and talk to me.

We’ll also use exponents and logarithms.

\(^2\) Using the substitution method: \( Y = X + 5 \) in (2); plugging into (1) yields \( X + 8 = 4X + 1 \); \( 7 = 3X \); \( X = 3/7 \); \( Y = 5 \ 3/7 \) or \( 38/7 \).
Assignments

18% Presentation

10% Referee Report

42% Problem Sets

25% Final exam

5% Participation

Each of you will present a professional economics paper from a leading economics journal at some point over the course of the semester. Presentations will run 30 minutes. Extensions on presentations will be granted only under extreme circumstances.

You will write one 3-page referee report. A late referee report will be penalized one-half letter grade per day (0.5 points from the 4 point scale; see below).

There will be nine problem sets assigned, of which you must do seven, including problem sets 1, 2, and 6.³ You must choose which problem sets to hand in; I will NOT grade them all and drop the lowest. Once you hand in a problem set, it will be scored and included in your grade. Problem sets will cover the economic tools covered in the textbook/lectures and also the professional articles. Because you are allowed two “drops,” extensions on problem sets will be granted only under extreme circumstances. (The exception is problem set 2, which is mandatory. If you turn in problem set 2 late, I will deduct one-half letter grade per day.)

You will take a final exam, which will cover the content of the assigned professional articles and problems similar to what was on the problem sets.

Participation: showing up on time is worth a B. To get a higher participation grade, you need to, you know, participate in class.

³ If you speak to students who took 703 last year, you’ll notice that this is several more problem sets than I’ve previously assigned. This year’s problem sets will be shorter. (The team problem sets will, of course, be longer than the individual problem sets.) My intention is to spread the work out more evenly across the term.
Grading

Each assignment will receive a letter grade from A to E. I translate these grades into a 4pt scale, with A = 4.0, A- = 3.66, B+ = 3.33, B = 3.0, B- = 2.66, and so on. At the end of the semester, I take a weighted average of all your grades to get your final score. The translation from this score to a final letter grade is NOT a matter of simple rounding. The cut-off between an A and an A- is a 3.70. The cut-off between a B and a B- is a 3.00. The cut-off between a B- and a C+ is a 2.65. The cut-offs between an A- and a B+ and between a B+ and a B will be selected in part based on the distribution of scores in the class.

Academic Integrity

I assume you are familiar with American standards regarding plagiarism. You must familiarize yourself with the information at http://library.albany.edu/usered/plagiarism/index.html. Plagiarism is a major offense and can receive severe punishments, from automatically failing the course to being expelled from the program. If in doubt about acceptable use of sources, ask.

Also, it is cheating to obtain answers to assignments from students who have taken the course before or to use answer keys from previous semesters.

Collaboration

You are strongly encouraged to discuss the assignments with your classmates. It would be a serious error not to work in study groups. However, there are three rules:

1) You need to have attempted each problem or paper on your own before you talk to your colleagues about it.

2) You must write up your own papers and problem sets yourself, from scratch, without having your colleagues’ work in front of you. AT NO POINT should you be modifying a file created by someone else. AT NO POINT should one of your colleagues give you one of her documents. You may take notes on your discussions, but when you actually write up your homeworks you should set those notes to the side and not look at them. (If you get stuck, you can go back and look at your notes again, but then you need to set them aside again while you’re actually writing your answers.) If you don’t understand what your group discussed well enough to do it yourself, then you don’t understand it.
3) At the top of each assignment, you need to acknowledge whom you worked with.

Textbook

The textbook for this class is Eric Rasmusen, *Games and Information: an Introduction to Game Theory*, 4th edition, on order from Mary Jane Books.

Readings

This is a class on economic literacy, and the only way to learn how to read economics papers is...to read economics papers. Therefore, I’m assigning a number of journal articles. All of them are available in full-text online, either through the library website or through the provided links.

Some of the readings will be discussed in class and used to illustrate key points for the tool we are learning that week. Other readings will form the basis for the presentations you will do. Each of you will present one paper at some point in the semester. The presentations will be done the week following the coverage for the tool that reading is intended to illustrate.

Schedule

Except for the first week, readings and assignments are due on the date listed.

Unit I: Building Blocks

1. Jan 28: How Economists Think
      [http://www.economics.harvard.edu/faculty/laibson/files/NYU%20Methodology%20may%20.pdf](http://www.economics.harvard.edu/faculty/laibson/files/NYU%20Methodology%20may%20.pdf)

2. Feb 4: Probability Theory and Discounting
   a. Handout on Probability Theory
   b. Handout on Present Discounted Value
   c. Rasmusen, appendix A.9

3. Feb 11: Expected Utility and Risk Aversion
   a. Problem Set 1 due (team; mandatory)
Unit III: Introductory Game Theory

4. Feb 18: Introduction to Game Theory
   a. Rasmusen, Introduction and Chapter 1.1-1.2; 1.4-1.5
   b. Problem Set 2 due (individual; mandatory)

5. Feb 25: Application: Matching Markets
   a. Problem Set 3 due
   c. Watch Nobel Prize Lecture by Al Roth, [link]

6. Mar 4: Sequential Games
   a. Rasmusen 2.1, 4.1-4.2, plus 4.3 (introduction to section, Nuisance Suits I, and Nuisance Suits III only)
   b. Kremer, 2000, “Creating Markets for New Vaccines, Part I: Rationale,” [link], Abstract, Introduction, Section 1, Section 2.2, Section 3.1,

7. Mar 11: Solving Problems with an Infinite Number of Possible Answers: Games with Continuous Strategy Spaces
   a. Problem Set 4 due
   b. Handout on Optimization
   c. Rasmusen 3.5-3.6

Mar 18: NO CLASS (Spring Break)

8. Mar 25: Mixed Strategies
   a. Referee Report Due
   b. Rasmusen, chapter 3.1-3.3
   c. Athey, Coey, and Levin, 2011, “Set-Asides and Subsidies in Auctions,” http://kuznets.fas.harvard.edu/~athey/papers/SetAsides%2007-08-11.pdf. Read it all, but pay particular attention to 1, 2A, 5B, 5C, 7. This is a very technically demanding paper, which we will use for a classroom exercise…

9. April 1: Repeated Games
   a. Problem Set 5 due
   b. Rasmusen, chapter 5.1-5.2

Unit III: Markets with Incomplete Information

10. Apr 8: Bayesian Equilibrium
    a. Problem Set 6 due (team, mandatory)
    b. Rasmusen, chapter 2.4
11. April 15: Information Revelation
   a. Problem Set 7 due
   b. Signaling Handout
   c. Rasmusen, chapter 9.1

April 22: Principal-Agent Problems
   d. Problem Set 8 due
   e. Rasmusen, chapter 7.1-7.3, 8.1-8.3
   f. Principal-Agent Problem handout

12. Apr 29: Selection and Moral Hazard
   a. Problem Set 9 due
   b. Rasmusen, chapter 9.2-9.4

13. May 6: Finale
   d. EACH GROUP NEEDS TO MAKE SURE SOMEBODY BRINGS A LAPTOP. You will be preparing powerpoint presentations in class.

14. TBD: final exam (PROBABLY May 13 at 1pm)