Economics 209A: Theory and Application of Non-cooperative Games

General: I will present the first four (marathon) lectures in this eight week course. Vincent Crawford will give the remaining lectures. This outline describes my half of the class. Crawford has already posted an outline, reading list, and course materials on his website:

http://www.econ.ucsd.edu/~vcrawfor/UCBecon209A.html

My half of the course meets on Mondays, January 27, February 3, 10, and 24, 10:00-11:50 in 639 Evans and then from 12:00-1:00 in 47 Evans. I will be available after class and on some Tuesdays. I will announce the precise times and location when I know them.

Contact information: email: jsobel@ucsd.edu, UCSD office phone: 858.534.4367, web page for class material:

http://www.econ.ucsd.edu/~jsobel/UCBecon209A.html

Preparation: I plan the course to be an introduction to game theory aimed at technically confident students who have seen some game theory. I may adjust my plan after the first class session. Econ 201A provides sufficient exposure to game theory. If you took Econ 206 last term, then you know more game theory than I do. Technical competence is a good substitute for technical confidence. Each come from successful experiences with mathematical reasoning.

Requirements and Grading: There will be at least one problem set and a final examination. An in-class final is currently scheduled for Monday April 14, from 10-11:50 in 639 Evans. In the first class session, we will decide whether to replace this with a take-home examination.

Crawford and I will average your performance in the two parts of the class. Local custom and your average performance will determine your course grade.

I urge you to participate in class actively. Doing so will not have a direct influence on your grade, but it will make the class more useful and enjoyable for all.

Texts and Reading The main reference for the course is:


(FT) is the standard graduate resource for the course material. It should be available at fine bookstores everywhere. An alternative general reference is:

(OR) M. Osborne and A. Rubinstein, A Course in Game Theory, MIT, 1994.
The next section lists some useful articles. Unpublished papers are available at the authors’ websites. Older papers are available on JSTOR or JET’s webpage.

Topics  I have creatively divided the four-lecture course into four topics. I chose to start with repeated games because I thought that I could prepare a class flexible enough to make sense to different levels. Depending on the outcome of the first class, I may vary the order and content of the remaining lectures. Treat Fudenberg and Tirole’s text as the basic reference source. Additional references are either classic treatments of important topics or interesting new work.

1. Repeated Games
   

2. Solution Concepts
   
   Basic Reference: FT, Chapters 1, 2, and 11, pages 1–63, 437–60.

3. Reputation
   
   Basic Reference: FT, Chapter 9, pages 367-81.

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4. **Bargaining**


