

Winter 2012, Department of Economics, University of California Los Angeles

## **Economics 201B: Game Theory**

This course is the second sequence of the three micro core courses (201A, 201B, 201C) for the first year Ph.D students. The goal of this course is to master the basic knowledge of game theory. The covered topics include: strategic (normal form) game, Nash equilibrium, Bayesian game, extensive game with perfect information, bargaining game, repeated game, and extensive game with imperfect information.

### **Instructor:**

Ichiro Obara  
9381 Bunche Hall  
E-mail: [iobara@econ.ucla.edu](mailto:iobara@econ.ucla.edu)  
URL: <http://www.econ.ucla.edu/iobara>  
Office hour: Wednesday, 4:30pm-6:00pm

### **Teaching Assistant:**

Yujing Xu  
2265 Bunche Hall  
E-mail: [yujingxu@ucla.edu](mailto:yujingxu@ucla.edu)  
Office hour: Wednesday, 10:30am-12:30pm

**Classweb:** <http://classes.sscnet.ucla.edu/course/view.php?name=12W-ECON201B-1>

### **Time and Location:**

Tuesday and Thursday, 9:00am - 10:50pm, Dodd 167  
Friday, 9:00am - 10:50am, Pub Aff 2250

### **Grades:**

The final grade will be based on weekly problem sets (35%), one midterm (15%), and one final exam (50%). The date of the midterm exam and the final exam is February 14 and March 19, respectively.

### **Prerequisite:**

It is assumed that students have taken an undergraduate level microeconomics course. In terms of required math, it is expected that students take Economics 200 (math course for incoming grad Ph.D. students) or have some equivalent level of knowledge in mathematics. More specifically, I am assuming that you are comfortable with the math in the appendix of Mas-Colell, Whinston and Green.

## **Textbooks:**

### **\*Required Textbook**

- My slides will be available at the classweb and <http://www.econ.ucla.edu/iobara/201B.html>
- *A Course in Game Theory*, M.J. Osborne and A. Rubinstein, MIT press (this book can be downloaded from the author's website).
- *Game Theory for Applied Economists*, R. Gibbons, Princeton University Press

### **\*Some Recommended Textbooks**

It is useful to have a few textbooks at hand. When you don't understand some concept in one book, it is sometimes helpful to read other books and see it from a different perspective.

I suppose that you already own *Microeconomic Theory* (Mas-Colell, Whinston, and Green) from 201A. It has a few chapters on game theory. You also should have an access to John's Essential Microeconomics website (<http://essentialmicroeconomics.com/>). *Game Theory* (Fudenberg and Tirole) is a standard textbook on game theory, with more economic applications than Osborn & Rubinstein. *Game Theory: Analysis of Conflict* (Myerson) is an excellent textbook on game theory with some materials that you cannot find in other textbooks.