Time and Place

Lectures: Mondays and Wednesdays 10am–11:30am, Lab Sciences 201. There will be no class on September 4 (Labor Day).
Help sessions: Fridays 10am–11:30am, location TBA.

People

Professor: Jonathan Weinstein
Office location: Seigle Hall 382
Office hours: TBA or by appointment
Phone: 5-4942
E-mail: j.weinstein@wustl.edu

Assistant: Jia’en Li
Office location: TBA
Office hours: TBA or by appointment
Email: jiaenli@wustl.edu

Course Description

This is the first quarter of a two-semester graduate sequence in microeconomic theory. This part comprises individual choice in an abstract setting, decision making under uncertainty and an introduction to game theory.

While crucial "hard facts" such as definitions, statements and proofs of theorems are all available in the book, you need more than this to be able to use the material on command. You need to have a set of concepts associated with each theorem in order to develop an instinct for when and how to use it. So, while I will repeat hard facts in class, the best use of lectures is (1) to give intuition that will help give you a feel for when and how to use each concept and theorem, and (2) to give you an idea of the process behind generating a proof, as opposed to just the finished product.
For some of you, this will be one of your first classes with extensive exercise in formal mathematical proof. Our natural reasoning skills are strongest when thinking verbally and spatially. Translating such an informal chain of reasoning into formal symbolic form is a necessary step to make sure the logic holds up; this is a learned skill. So, in the best cases, proving a mathematical statement consists of forming a verbal or spatial intuition for why it is true, then finding a way to state this intuition in formal symbols to see that it holds up logically. You will see that I always provide an intuitive statement to go with the formal statement of a concept or theorem. Knowing how to connect the two is central to being a good economic model-builder. Mathematician Terence Tao makes some important related points in this entry on his excellent blog: http://terrytao.wordpress.com/career-advice/there-s-more-to-mathematics-than-rigour-and-proofs/  

Requirements and Grading

• Problem Sets: there will be (roughly) weekly problem sets for a total of 7 problem sets. You are encouraged to talk to each other but you must write up your own solutions in the end. Unless stated otherwise, each problem set will be due on a Wednesday by the end of class. We will not accept late problem sets for any reason. However, only your best 6 problem sets will count toward the final grade. Therefore you can miss one of them without any cost.

• There will be a closed book exam for this part, in class.

• Grading: for this part of the course, the problem sets count 40% and the exam 60%.

Textbook


Other classic texts for core micro


Introductory books for Game Theory

**Advanced Game Theory books**

**Topics for this part of the course**
- Decision making under certainty: choice, preference, utility — MWG Chapter 1.
- Decision making under uncertainty — MWG Chapter 6.
- An introduction to game theory — MWG chapters 7, 8, 9; Gibbons; Osborne.