

Spring 2012
Economics 212
Game Theory

Class time and place: Tuesday and Thursday from 1:30-3:00pm at Annenberg 111

Coverage: The aim of this course is to introduce the basic principles of game theory to you. Game theory has two parts. *First*, it is a language to describe a strategic interaction. It formalizes problems such as: Firm A first sets its price, then Firm B sets its price, then consumers decide where to buy. Game theory, however, is rich enough to describe much more interesting environments, starting from arms races to the problem of finding out which physicians are good. *Second*, game theory proposes solution concepts. It tries to predict what rational players would do if they were faced with the situation. In the example above: Which price should Firm A set? You will see that the basic idea how economists think about the solution to a game-theoretic situation is always the same, with some adjustments to a specific context. The specific context is whether all players act at the same time or subsequently, and whether there are aspects that are known to some players but not to others.

Instructor: Tymofiy Mylovanov, 456 McNeil, mylovanov@gmail.com
office hours: Monday 2:00-3:00pm and Wednesday 10:00-11:00am or by appointment

Teaching Assistant:
Ju Hu, 424 McNeil, juhu1@sas.upenn.edu, Tuesday 3:30-5:30pm

Course material will be continuously posted on Blackboard <https://courseweb.library.upenn.edu/>.
There is a facebook page at <http://www.facebook.com/groups/pennecon212/>.
The group is a supplementary resource and becoming a member is not required.
The originals of the slides will be available for copying and editing on prezi.com.

Text Watson, J., *Strategy: An Introduction to Game Theory*, 2nd edition.

Prerequisites: Econ 101 and Math 114 or 115.

Grading and Exams: Grades will be based on

1. 30%: Midterm exam I, in class on Thursday, February 14.
2. 30%: Midterm exam II, in class on Thursday, March 29.
3. 10%: Weekly homework assignments.
4. 30%: Final exam.

The final is cumulative but with emphasis on the last part of the course. The exams are closed book (closed everything). The homework assignments are weekly and will be available on blackboard; they will be due at the *beginning* of the class on the due date. The homework assignments could be discussed but should be written and submitted individually, as hard copies or as pdf files at juhu1@sas.upenn.edu. Answers will typically be posted to blackboard the day the problem set is due. As a result, late problem sets will not be accepted. When computing

the average problem set score to calculate the grade, the two lowest individual score will be dropped. This allows for two missed problem sets, if necessary, without adverse consequences.

The departmental policies on attendance, exams, grading appeals, etc., are available at <http://economics.sas.upenn.edu/undergraduate-program/resources/policies>

No class. There will be no class on April 5. The class on April 3 will be substituted for by another instructor or made up for on an alternative date.

Email. Please check your email settings on blackboard to make sure you receive emails. There will be a test email message sent to the class list through blackboard on Friday, January 13.