EC0354K, Unique No. 33490 INTRODUCTORY GAME THEORY SYLLABUS TTH 2-3:30, BRB 1.118

Content:

This course will introduce upper-level undergraduates to game theory, which has made recent significant contributions in every field of economics as well as other social sciences. Game theory concerns itself with decision making in situations where the outcome depends on the actions of several decision makers. Chess and poker are games, but also business pricing decisions, trade tariff negotiations, and committee voting can be fruitfully analyzed as formal games.

Classes will consist of lectures and demonstrations/experiments. There may be an occasional class scheduled at another time to utilize a computer laboratory. Most homework will be done in teams of 3-5 students.

Texts: <u>Strategies and Games: Theory and Practice</u>, P. K. Dutta, MIT Press, 1999, (required).

<u>Undergraduate Game Theory - Lecture Notes</u>, D. Stahl, 2010, available at CBA, (required).

Thinking Strategically, Avinish Dixit and Barry Nalebluff, Norton, 1991 (optional).

Fun and Games, Ken Binmore, Heath, 1992 (advanced reference).

Grading: Homework 10%; two exams 30% each; Final 30%.

Exam I: September 26 Exam II: November 9 Final Exam: see Registrar's web page.

A+:[97,100]; A:[93,97); A-:[90,93); B+: [87,90); B:[83,87); B-:[80,83); C+:[77,80]; C:[73,77); C-:[70,73); D+: [67,70); D:[63,67); D-:[60,63).

Course Outline:

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1	LN0, D26	Review of Probability Theory
2	LN1, D2.1-2.3	Decisions Under Certainty
3-4	LN2, D27,2.4	Decisions Under Uncertainty
5	LN3, D1,2	Games as Extended Decision Problems
6-7	LN4, D11,13,19	Games with Perfect Information
8-9	LN5, D3-5,8	Games with Imperfect Information
10-11	LN7, D20,22,24	Games with Private Information
13-14	LN6, D14,15	Repeated Games
15	LN8	Bounded Rationality and Learning

Office Hours: BRB 3.134F, MW 9-10:30

TA: Jonathan Lhost, BRB 4.116; HW Review: tba