ECO316: Applied Game Theory

University of Toronto
Summer 2018

Contact

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Key Information

Lectures: Tuesday and Thursday 12:00-14:00 in SS1073
Tutorials: Tuesday and Thursday 14:00-15:00 in SS1073
Office Hours: Tuesday 15:00-16:00 in GE346
TAs: Kevin Fawcett and Huilan Xu
Website: Portal

Course Description

Game theory is a set of tools for studying situations in which rational decision-makers interact. This course provides an introduction to game theory in economics with applications.

Course Materials

Lectures, tutorials and problem sets will be posted on the course website. I will assign additional readings and problems from "An Introduction to Game Theory" by Martin J. Osborne (Oxford University Press, New York, 2003).

Prerequisites and Exclusions

Second-year microeconomic theory (ECO200/ECO204/ECO206) is a prerequisite for this course. This course also requires basic calculus and probability (e.g. differentiation and distributions). Advanced microeconomic theory (ECO326) is an exclusion for this course. You cannot take ECO316 instead of ECO326 if your program requires ECO326.

Evaluation

Your final grade will depend on a test (40% of final grade) and a final exam (60% of final grade). The test will be held in class on July 19, 2018. The final exam will be held during the exam period. The final exam will be comprehensive.

Regrade Requests

You may request a regrade if an evaluation has not been graded correctly. Regrade requests must be submitted by email within one week of receiving the grade for the evaluation in question. Regrade requests must provide valid justification for the request. If you submit a regrade request then your entire evaluation will be regraded. You can receive a lower grade.

Medical Notes

If you miss the test because of a serious illness then you must submit a completed "Verification of Student Illness or Injury" certificate. This certificate must be completed by a qualified medical doctor. This certificate must include the doctor's OHIP registration number.

Schedule

This schedule is tentative and subject to change. Chapters refer to "An Introduction to Game Theory" by Martin J. Osborne.

Lecture	Date	Main Topics	Chapters
1	July 3	Strategic Games and Nash Equilibria	1, 2.1-2.7
2	July 5	Cournot, Bertrand and Best Response	2.8, 3.1-3.2
3	July 10	Electoral Competition	3.3
4	July 12	Mixed Strategies	4.1-4.3, 4.5
5	July 17	Strict and Weak Domination	2.9, 12.2-12.3
6	July 19	**Test**	-
7	July 24	Collective Choice	2.9, 9.7
8	July 26	Auctions	9.6
9	July 31	Extensive Games	5.1-5.5
10	August 2	Stackelberg, Ultimatum and Holdup	6.1-6.2
11	August 7	Repeated Games	14.1-14.12
12	August 9	Incomplete Information	10.1-10.5, 10.7