Instructor: Marcin Peski,
Office hours: Monday, 2-4pm, Max Gluskin 207
Email: mpeski@gmail.com

Teaching Assistant: Young Wu
Office hours: TBA
Email: yiyang.wu@mail.utoronto.ca

Course description:
This is a class in game theory. Game theory analyzes the behavior of small groups of agents in strategic situations, ie, situations where the actions of each of the agents may affect payoffs or incentives of the others. The class will be quite rigorous as one of its goals is to give you some idea about what people study in a formal economics graduate program. The main emphasis will be on learning formal concepts and methods how to approach and think about games. As illustrations, we will see a broad range of application from economics, political science, sociology, job search, dating, etc.
At the end of the class, you will be able to
1. describe a situation that you encounter in your work or life and that involves interaction of two or more people as a game,
2. identify key features of the game (number of players, actions, payoffs, whether the game has simultaneous or sequential moves, whether there is any incomplete or asymmetric information) and describe a formal model of the game,
3. analyze the game and predict what behavior or what actions are likely to be chosen.

Course Prerequisites:
It is your responsibility to check whether you have correct prerequisites for this class. The Department strictly enforces the prerequisites – if you do not have them you will be dropped, no exceptions. The course prerequisites are
ECO200Y1(70%)/ECO204Y1(70%)/ECO206Y1,
ECO220Y1(70%)/ECO227Y1/(STA247H1(70%),STA248H1(70%))/(STA250H1(70%),
STA255H1(70%))/(STA257H1,STA261H1).
You are **not** supposed to take this class together with ECO316H1 or ECO326H5.
Recommended Preparation: MAT223H1/MAT240H1,
MAT235Y1/MAT237Y1/ECO210H1

Readings:
The *required text for* this course is Martin J. Osborne, An introduction to game theory *(Oxford University Press, New York, 2004).* Below, I list the topics for each lecture together with assigned readings. The list is tentative and it may change during the lecture, especially in the second part of the class.

Date	Topic	Readings
06-01	1. Games. Dominant strategies.	1, 2.1-2.5, 2.9
13-01	2. Iterated elimination and rationalizability.	12.1-4 (voting game is described in 2.8 and 3.3)
20-01	3. Nash equilibrium.	2.6-2.8, 3.1
27-01	4. Nash equilibrium – examples.	3.1-3.2, 3.5
03-02	5. Mixed strategies.	4.1-4.5,4.9
10-02	Midterm	
24-02	6. Extensive form games. Subgame perfection.	5.1-5.5,6.1-6.2
03-03	7. Extensive form games – Bargaining.	7.1-7.2, 7.6-7.7
10-03	8. Repeated games.	14.1-14.2, 14.4-14.6, 14.7.1, 14.10.1
17-03	9. Games with incomplete information.	9.1-9.3,
24-03	10. Games with incomplete information.	9.4-9.5, 7.6
31-03	11. Auctions.	3.5,9.6

I will post practice problems on the class website,
http://individual.utoronto.ca/mpeski/ECO326F.html (you can also find a link on the
course website on Blackboard). Many of the problems will come from the textbook and
many of them have online solutions. The solutions that cannot be found online will be
discussed during the tutorial after the lecture.
You are responsible for *all* the material covered in class, the assigned readings, and the
practice problems.

Grade:
There will be one midterm, **February 10th**, and the final exam on a date yet to be
determined. The midterm will cover materials from Lectures 1-5. The final will be
cumulative with an emphasis on the second half of the class. The grade will be a
weighted average between the midterm and the final, with 60% of the grade for the
higher score of the two and 40% weight on the lower score. Additionally, you may have a
chance to win minor points (I do not expect it to be more than 1% on average per student)
during in-class experiments.

Regrades: I accept applications for re-grades if: (1) it is made **in writing** and given to me
personally along with your entire paper, (2) it clearly specifies which questions were
improperly marked and explains why, (3) it is submitted within one week after each exam
or midterm is returned. In addition, I generally regrade entire exams, not just individual
questions. Your score may go up, go down or remain unchanged.

Make-up midterm: You are required to attend the midterm. Should you need to miss a midterm,

1.   I will need a documented, valid excuse. An example of a documented, excused absence is an **original** note from a doctor that states you are physically **unable** to attend the final. The only accepted note is a fully completed University of Toronto Medical Certificate completed by a qualified medical doctor (e.g., not an acupuncturist, chiropractor, or other health care professional) and with the doctor's OHIP registration number.

2.   I need to be contacted **before** the exam.

When both (1) and (2) are satisfied, you will be able to take the make-up midterm. The make-up midterm will be scheduled for **Friday, February 28th**, 9am-11am. Should you miss the midterm without satisfying one of the two above conditions, or should you miss the make-up midterm, you will automatically get 0 points for the midterm.

Any absence during the final exams is dealt according to the standard university procedures.

Drop dates: Please make sure you check the calendar to make sure you're aware of the add/drop deadlines and the associated penalties:
http://www.artsandscience.utoronto.ca/ofr/calendar/Sessional-Dates.html

Email policy: I will try to respond to emails within 24 hours outside of weekends. However, I do not respond to emails that ask a question that can be answered by looking at the syllabus or course website. Some questions cannot be answered adequately over the email so I will ask you to see me in office hours. Questions on grading will only be answered during office hours.

Academic Dishonesty: I take any attempts to cheat (either actively or by assisting/facilitating cheating) very seriously. Any student caught or suspected will be referred to OASI and will be subject to penalties as prescribed by the University.