Course Outline

ECON4010 Advanced Topics in Microeconomics
Fall 2015
Thursday 2:30pm-5:15pm (ELB 308)

Instructor: Zheng, Jie (郑捷)
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Office: Room 1013, Esther Lee Building
Office Hour: Wednesday 3:30pm-5:00pm

TA: Sun, Yufeng (孙宇峰)
TA's E-mails: pkuskyfree@gmail.com
TA's Office: Room 1017, Esther Lee Building
TA's Office Hours: Tuesday 10:30am-12:00pm
Tutorials: See the course schedule for details

Course Description:

This course covers several advanced topics in microeconomic theory. We begin with the theory of general equilibrium, where the main goal is to remind students what they learned from the intermediate microeconomics course and help students to well understand the concept of equilibrium. Then, we study how individuals interact with each other in a game theoretical setting. Four types of games (static/dynamic games with complete/incomplete information) are carefully studied, which serve as analytical frameworks for the topics of principal-agent problems, bargaining problems, and auctions. Finally, we give an elementary introduction to two important and interesting topics in theory: matching and social networks, which become very popular in recent years.

In order to do well in this course, the students should be familiar with calculus, elementary optimization techniques and basic probability theory.

Textbook & Reference:

There is no required textbook for this course. The lecture is mainly based on the following books and related journal articles. The book by Gibbons is strong recommended to students who pursue further study in microeconomic theory.

1. Mas-Colell, A., M. Whinston and J. Green, Microeconomic Theory, Oxford U. Press, 1995.
2. Jehle, G. A., and P. J. Reny, Advanced Microeconomic Theory, Addison Wesley, 2011.
3. Kreps, D., A Course in Microeconomic Theory, Princeton U. Press, 1990.
4. **Gibbons, R., Game Theory for Applied Economists, Princeton U. Press, 1992.**
5. Campbell, D.E., Incentives: Motivation and the Economics of Information, 2nd Ed., Cambridge U. Press, 2006.
6. Jackson, M.O., Social and Economic Networks, Princeton U. Press, 2010.

Grades:

There will be 4 problem sets, each of which counts for 10% of the total points. There will be a closed-book in-class final exam, representing 60% of the total points.

Therefore, the composition of the final points is the following:

No.	Assessment method	Percentage
1	Problem Set	40%
2	Final Exam	60%

Problem Sets

Homework assignments will be posted to the online blackboard platform (CUSIS). You have at least one week to work on each problem set. Some of the homework questions are intended to be instructional; you may find them challenging. The due date of each assignment will be specified. Please hand in your answer sheet in class or submit it by 10:00pm of the due date to the instructor's assignment drop box on the 9th floor of ELB. Late submissions are not accepted without valid excuses, which refers to a verified illness with a medical note or endorsement by the University Health Center.

Students are encouraged to work together on assignments, but must write their own answers independently.

Grading of the homework will be done at the week following the due date, and comments and explanations on homework questions will be provided by TA in the associated tutorial sessions. Students should expect to receive their graded assignments in a week after the submission.

Exam and Policy

The final exam is scheduled in class on December 3rd, counting for 60% of the total grades and covering all the topics taught in weeks 1-10.

There is in general no option for having a make-up exam. If a student misses the exam for no valid excuse (referring to a verified illness), he or she will receive zero grade for the exam. If a student does have a valid excuse to miss the exam, a new exam covering the same course material will be arranged for this student. However, there is no guarantee that the difficulty level of the make-up exam is the same as the regular exam.

Please note that conflicting travel plan is not a valid excuse for requesting a make-up exam.

Re-grading Policy

If a student would like to appeal to re-grade his/her answer sheet of the homework/exam, a formal request must be made within one week of the notice of the grades for the answer sheet in question. Instead of only re-grading the parts specified by the student, the whole answer sheet will be re-graded, which implies that the updated grades may become lower than before.

Help

All students are welcome to come for discussion during my office hours: Wednesday, 3:30pm-5:00pm. If students want to meet some other time, appointments must be made by E-mail. Before the final exam, brief reviews will be provided in order to help students prepare for the exam.
Our TA will also hold weekly office hours, as well as lead 4 tutorial sessions.

CUSIS

Course Materials (including course outline and slides) can be found on the online blackboard platform (CUSIS). Homework assignments will be posted by 10pm on the indicated post date on CUSIS. No hard copies will be distributed. It is students' responsibility to download the homework assignment from CUSIS and check the course material regularly.

University Policy on Academic Honesty

Attention is drawn to University policy and regulations on honesty in academic work, and to the disciplinary guidelines and procedures applicable to breaches of such policy and regulations. Details may be found at http://www.cuhk.edu.hk/policy/academichonesty/.

With each assignment, students will be required to submit a signed declaration that they are aware of these policies, regulations, guidelines and procedures.

- In the case of group projects, all students of the same group should be asked to sign the declaration, each of whom is responsible and liable to disciplinary actions should there be any plagiarized contents in the group project, irrespective of whether he/she has signed the declaration and whether he/she has contributed directly or indirectly to the plagiarized contents.
- For assignments in the form of a computer-generated document that is principally text-based and submitted via VeriGuide, the statement, in the form of a receipt, will be issued by the system upon students' uploading of the soft copy of the assignment.

Assignments without the properly signed declaration will not be graded by teachers.
Only the final version of the assignment should be submitted via VeriGuide.

The submission of a piece of work, or a part of a piece of work, for more than one purpose (e.g. to satisfy the requirements in two different courses) without declaration to this effect shall be regarded as having committed undeclared multiple submission. It is common and acceptable to reuse a turn of phrase or a sentence or two from one's own work; but wholesale reuse is problematic. In any case, agreement from the course teacher(s) concerned should be obtained prior to the submission of the piece of work.

The sample statement is as follows, can be downloaded at
http://www.cuhk.edu.hk/policy/academichonesty/Eng_htm_files_(2013-14)/declaration_en.doc.

I am submitting the assignment for:

☐ an individual project or

☐ a group project on behalf of all members of the group. It is hereby confirmed that the submission is authorized by all members of the group, and all members of the group are required to sign this declaration.

I/We declare that: (i) the assignment here submitted is original except for source material explicitly acknowledged; (ii) the piece of work, or a part of the piece of work has not been submitted for more than one purpose (e.g. to satisfy the requirements in two different courses) without declaration; and (iii) the submitted soft copy with details listed in the <Submission Details> is identical to the hard copy(ies), if any, which has(have) been / is(are) going to be submitted.

I/We also acknowledge that I am/we are aware of University policy and regulations on honesty in academic work, and of the disciplinary guidelines and procedures applicable to breaches of such policy and regulations, as contained in the University website http://www.cuhk.edu.hk/policy/academichonesty/.

In the case of a group project, we are aware that each student is responsible and liable to disciplinary actions should there be any plagiarized contents/undeclared multiple submission in the group project, irrespective of whether he/she has signed the declaration and whether he/she has contributed directly or indirectly to the problematic contents.

It is also understood that assignments without a properly signed declaration by the student concerned and in the case of a group project, by all members of the group concerned, will not be graded by the teacher(s).

_____   _____

Signature(s)   Date

_____   _____

Name(s)   Student ID(s)

_____   _____

Course code   Course title

Tentative Teaching Schedule

Week	Date	Content	Note
1	Sep 10	Introduction and Overview of the Course General Equilibrium Theory I	
2	Sep 17	General Equilibrium Theory II	PS1 Posted
3	Sep 24	Static Games with Complete Information	PS1 Due
4	Oct 1	Holiday	Tutorial 1*
5	Oct 8	Dynamic Games with Complete Information	PS2 Posted
6	Oct 15	Static Games with Incomplete Information	PS2 Due
7	Oct 22	Dynamic Games with Incomplete Information	Tutorial 2*
8	Oct 29	Principal-Agent Problems	PS3 Posted
9	Nov 5	Bargaining Theory	PS3 Due
10	Nov 12	Auctions	Tutorial 3* PS4 Posted
11	Nov 19	Matching Theory and Applications	PS4 Due
12	Nov 26	Social Network Theory and Applications Course Review	Tutorial 4*
13	Dec 3	Final Exam	Final Exam

*Each of tutorial sessions 1-4 will be scheduled in the week following the deadline of each problem set.