IM 7011 – Information Economics, Fall 2014

Instructor: Ling-Chieh Kung
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In the field of Information Economics (or Economics of Information), people use economic tools to study the value and impact of information. Information is not only important in the information industry; it has critical impacts in almost all business activities. In this course, we will study how to apply economic modeling to rigorously analyze information-related issues, especially information asymmetry. Applications that we will study lie in marketing, supply chain management, information systems, among others. Students will be required to read some academic papers and conduct some case studies. Due to the nature of this field, this course cannot be taught without economic theories. To comfortably take this course, one needs to know basic ideas about calculus, optimization, and probability.

This is an elective course offered in the Department of Information Management in National Taiwan University. The target "customers" of this course are graduate and senior students, though junior students may still enroll in this course. In most cases, all students who want to enroll in or audit this course are welcome.

Basic information

Instructor
- Ling-Chieh Kung (孔令傑). E-mail: lckung(AT)ntu.edu.tw.
- Office: Room 413, Management Building II. Tel: 02-3366-1176.
- Office hour: 10:30am-noon, Thursday or by appointments.
- http://www.im.ntu.edu.tw/~lckung/

Teaching Assistants
- Jack Chen (陳嘉豪). E-mail: r02725018(AT)ntu.edu.tw.

Lectures
- 9:10am-12:10pm, Monday in Room 204, Management Building II.

Prerequisites
- Students need to know the basic ideas of calculus, optimization, and probability.
- Some knowledge about game theory will be helpful.

References
- (SV) *Information Rules* by C. Shapiro and H. Varian.
- (LD) *Freakonomics* by S. Levitt and S. Dubner.[1]
- (CT) *Contract Theory* by P. Bolton and M. Dewatripont.
- (G) *Game Theory for Applied Economists* by R. Gibbons.

On-line Resources
- For checking grades: CEIBA.
- For materials: http://www.im.ntu.edu.tw/~lckung/courses/IE-Fa14/.
- For discussions: the bulletin board "NTUIM-lckung" on PTT.

Grading

Breakdown
- Homework 1: 5%.
- Class participation: 10%. Class problems: 20%.
- Case reports: 20%.
- Exams: 20% (10% each).
- Project: 25%.

Conversion Rule
- The final letter grades will be given according to the following conversion rule:

Letter	Range	Letter	Range	Letter	Range	Letter	Range	Letter	Range
F	[0, 60)	C−	[60, 63)	C	[63, 67)	C+	[67, 70)	B−	[70, 73)
B	[73, 77)	B+	[77, 80)	A−	[80, 85)	A	[85, 90)	A+	[90, 100]

[1] Translated into Chinese with the book title "蘋果橘子經濟學".

Course outline

There are four modules in this course: decentralization and inefficiency, the screening theory, the signaling theory, and final project presentations. The course starts with discussions about the incentive issues in decentralized systems. We then spend most of our time studying the economics of information to understand the impacts of possessing or being lack of information. The focus will be on adverse selection, one of the most well studied types of information asymmetry in the field of economics. We will discuss how one may screen others' private information and signal its own private information. Finally, students' final project presentations conclude this course.

Policies

"Flipped Classroom"

- Before most Monday lectures, the instructor will upload videos containing some materials to be discussed on that Monday. The total length of those videos for one lecture will be around 60 to 90 minutes. Students must find their own time to watch the videos before the lecture.
- During lectures, we answer students' questions regarding materials in the videos, give examples, do on-site exercises and discussions, and introduce further materials.
- For most problems assigned in lectures, students form teams to discuss about and solve them. They may volunteer or be requested by the instructor to demonstrate their solutions to the class to earn ***points for class problems***.

Teams

- Students must form teams to do lecture problems and case studies. One's teams for these tasks need not to be identical. Each team should have ***exactly three*** students unless a special approval is obtained from the instructor. If it really helps, teams may be reformed by the instructor after the midterm exam.

Homework and Case Studies

- Thanks to in-class exercises and lecture problems, students ***do not*** need to submit homework (except Homework 1)! To give students more chances to do practices, several homework assignments will be given. Solutions will be provided on the due dates.
- For a case study, each team submits a written report. Naturally, some case questions are open questions with no standard answers.
- To submit a case report or a homework paper, please put a ***hard copy*** of the work into ***the instructor's mailbox*** on the first floor of the Management Building II by the due time. No submission in class. Being late for less than one hour gets deductions on grades; being late for more than one hour gets no grade.

Project

- Students will form "teams" to do a final project by applying the techniques learned in this course to a self-selected problem. Each team will make an oral presentation in one of the last two lectures and submit a report. The written report is due on the date the team makes the oral presentation. The number of teams and number of students in each team will be determined after the class size is finalized.

Class Participation

- We encourage class participation and include it in evaluating each student. During lecture time, students are more than welcome to ask or answer questions and provide comments. One gets good participation grades if her/his participation enhances the learning experiences of the class or she/he simply impresses the instructor with her/his passion and diligence.

Office Hour

- You are welcome to the instructor's office hour to ask him any question. You may ask him to clarify some concepts, give suggestions on homework or case studies, or discuss the final project. Discussions not related to this course are also welcome. If you do not want to come in the designated time, feel free to send me an e-mail to schedule a meeting.

Exams

- Both the two exams will be in-class and open whatever you have (including all kinds of electronic devices). However, no information is allowed to be transferred among students. Cheating will result in severe penalty. The final exam covers only materials taught after the midterm exam.