Econ 5210: Ph.D. Microeconomic Theory I
Fall 2017 Syllabus

Department of Economics
HKUST Business School

Schedule: Monday and Wednesday, September 4-November 29
(No class on October 2)
Time: 10:00–11:50 a.m.
Venue: LSK Rm. 1032

Course Web Site: https://canvas.ust.hk/

Instructor:
Kohei KAWAGUCHI (川口康平)
Email: kkawagchi@ust.hk
Office Location: Rm. 6070, LSK Bldg
Web: https://www.kohei-kawaguchi.com/

Office Hours: Mon 13:30-15:30.

Teaching Assistant:
Yimeng ZHANG
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Office Location:

Office Hours: Wed 15:00-17:00
Tutorial Session: Discuss in the first lecture (Up to 2 hours per assignment).

Course objective
This course provides first-year Economics Ph.D. students with foundation knowledge in advanced microeconomic theory. In particular, the course focuses on essential concepts and necessary analytical tools for the study of consumer and firm decision making, both in single-player and multi-player (strategic) environments. We will also consider how uncertainty and concern for future payoffs impact economic agents’ decision making.

Learning outcomes
On completion of this course, you will be able to
1. understand classic results in microeconomic theory,
2. formalize economic problems using simple but well-reasoned models,
3. find solutions for formal economic problems, and
4. apply equilibrium concepts of game theory to various economic settings.

**Required Textbook**
Microeconomic Theory, Mas-Colell, A., M.D. Whinston, and J.R. Green, Oxford, 1995

**Optional References**
Microeconomic Theory, S. Wang, People’s University Publisher 2006
Microeconomic Analysis, Hal R. Varian, W. W. Norton & Company 1992
Game Theory, Drew Fudenberg and Jean Tirole, MIT Press 1991

**Grades**
The grades will be based on problem sets (10%), one mid-term (each 35%), and a final exam (55%).
Students are encouraged to work together on problem sets but each must write up his or her own solutions to each problem. Problem sets will only be graded based on effort and not accuracy.
The **midterm exam** will be held on **Monday, October 23, 2017** during the regular class.
The **final exam** will be centrally organized by the university. You will need a very strong reason, substantiated by sufficient supporting documents, to miss any exam. Considering the advantage of having more time to prepare, the make-up exam is expected to be more difficult than the original exam.

**Course Outline**
I. Individual Decision Making (Chapters 1-3, 5-6)
   - Preference and Choice (Chapter 1)
   - Consumer Choice (Chapter 2)
   - Classical Demand Theory (Chapter 3)
   - Choice under Uncertainty (Chapter 6)
   - Production (Chapter 5)
II. Game Theory (Chapters 7-9)
   - Basic Elements of Noncooperative Games (Chapter 7)
   - Simultaneous-Move Games (Chapter 8)
   - Dynamic Games (Chapter 9)
III. Market Equilibrium and Market Failure (Chapters 10, 12)
   - Competitive Markets (Chapter 10)
   - Market Power (Chapter 12)
   - Other Topics in Industrial Organization (coverage depends on time available)