

Syllabus for Microeconomic Theory I (4 units)

Instructors: Hui-Wen Koo (古慧雯, part 1), Joseph Tao-yi Wang (王道一, part 2)

TA: Yi-fan Cheng (陳奕帆) (f97323011 “at” ntu.edu.tw)

Classroom and Time: Wed 2:20-4:20pm, and Thur 9:00-12:10am, at 經大講堂

Part 1: Optimization, Uncertainty and Information

Instructor: Hui-Wen Koo

Course Description: In the first half of this semester, we shall discuss basic concepts of microeconomics.

Varian (1992), *Microeconomic Analysis*, 3rd edition, W. W. Norton & Company, will be used, and the following topics will be covered:

1. Consumption
 - a. utility maximization (Ch.7)
 - b. comparative statics (Supplementary section on mathematics)
 - c. aggregation (Ch.9)
 - d. welfare analysis (Ch.10)
2. Monopoly Pricing
 - a. second-degree price discrimination (Ch.14)
3. Uncertainty
 - a. expected utility function (Ch.11)
 - b. risk aversion (Ch.11)
4. Asymmetric Information
 - a. moral hazard (Ch.25)
 - b. adverse selection (Ch.25)

Two papers to be discussed:

Daniel M. Bernhofen and John C. Brown (2005), “An Empirical Assessment of the Comparative Advantage Gains from Trade: Evidence from Japan,” *American Economic Review*, 95(1), 208-225.

Walter Y. Oi (1971), “A Disneyland Dilemma: Two-Part Tariffs for a Mickey Mouse Monopoly,” *Quarterly Journal of Economics*, 85(1), 77-96.

You’re supposed to form a study group of 10 people and write a one-page summary for each paper. Two groups will be selected randomly to present the papers. Pay attention to the technical analysis which is an important part of this course.

Grading: two exams (20% and 20%), discussion (10%)

Part 2: Price-Taking and Strategic Equilibrium

Class website: http://homepage.ntu.edu.tw/~josephw/essential_micro_theory_12F.htm

Instructor: Joseph Tao-yi Wang (josephw@ntu.edu.tw) Office: 研究大樓 425 室

Office Hours: Wed 4:20-5:20pm (after class) or by email appointment

Textbooks:

Riley (2012), *Essential Microeconomics*, Cambridge University Press. (EM).

Camerer (2003), *Behavioral Game Theory*, Princeton University Press (BGT).

Grades and Requirements: Twelve homework assignments (24%) and final exam on 1/10 (26%). Any request of absence must be filed in advance (before 1/10 9am, unless due to medical emergency). Re-grade requests must be submitted in writing within 1 week the exam is returned and are performed on the entire exam.

Course outline:

1. Price-Taking Equilibrium in an Exchange Economy: [9/12, 11/21, 22, 28]
 - a. Supporting Prices (EM 1.1) [HW 1.1]
 - b. The 2x2 Exchange Economy (EM 3.1) [HW 3.1]
 - c. The Fundamental Welfare Theorems (EM 3.2) [HW 3.2]
 - d. Edgeworth Box Bargaining Experiments (Sunder) [HW1]
2. Strategic Equilibrium: [11/29, 12/5, 6, 12]
 - a. Strategic Equilibrium (EM 9.1, BGT A1.1) [HW 9.1]
 - b. Mixed-Strategy Equilibrium (BGT 3) [HW2]
 - c. Games with History (EM 9.2) [HW 9.2]
 - d. Dominance-Solvable Games (BGT 5) [HW3]
3. Equilibrium with Private Information: [12/13, 19, 20, 26, 27; 1/3-review]
 - a. Games of Incomplete Information (EM 10.1) [HW 10.1]
 - b. Auction Experiments (Cassar and Friedman, 2004, Ch.9) [HW4]
 - c. Refinements of Bayesian Nash Equilibrium (EM 10.2) [HW 10.2]
 - d. Signaling, Reputation, and Cheap Talk (BGT, Ch.8) [HW5]
 - e. [Optional] Ultimatum, Dictator and Trust Games (BGT 2) [HW6]
 - f. [Optional] Bargaining (BGT, Ch.4)

Note: While other half of the course is taught in Chinese, this half is taught solely in English, and you have to finish all assignments in English. *I pre-commit NOT to understand Chinese either in class or when grading.* Take Microeconomic Theory III instead if you have a problem with language.