

Syllabus for Microeconomic Theory I-1: Optimization, Consumer Decision, Uncertainty and Equilibrium in Exchange Economy

Classroom and Time: Tue 4:30-6:20pm and Wed 1:20-4:20pm at Social Sciences 502

Class website: http://homepage.ntu.edu.tw/~josephw/essential_micro_theory_19F.htm

Instructor: Joseph Tao-yi Wang (王道一, josephw “at” ntu.edu.tw) Office: Social Sciences 754

Office Hour: Fri 12:10-1pm at Liberal Education 103 or by email appointment

TA: Sean Yu-Hsiang Wang (王昱翔, r07323023 “at” ntu.edu.tw)

Office Hour: Tue 2:00-4:00pm at Social Sciences 649

Textbook 1: Riley (2012), *Essential Microeconomics*, Cambridge University Press. (EM)

Textbook 2: Simon and Blume (1994), *Mathematics for Economists*, W. W. North. (SB)

Reference 1: Mas-Colell, Whinston and Green (1995), *Microeconomic Theory*, Oxford UP. (MWG)

Reference 2: Rubinstein (2019), *Lecture Notes in Microeconomic Theory*, Princeton UP, 2nd ed. (R)

Grades and Requirements: Weekly quizzes on homework assignments at the beginning of TA sessions (42%) and final exam (11/6, 68%). Any request of absence must be filed in advance (before exam day 1pm, 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.

Note: This course 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.

Course outline: (* indicates irregular schedule)

- [9/10] *Supporting Prices (EM 1.1); Concavity and Quasi-Concavity Notes (EM A.5, B.2)
- 1. [9/11] Shadow Prices (EM 1.2, 1.5); Envelope Theorem (EM 1.3);
- 2. [9/17] *Theory of Choice (EM 2.1)
 - [9/18] *Quiz 1 and TA session
 - [9/24] Quiz 2 and TA session
- 3. [9/25] Consumer Choice with 2-Commodity (EM 2.2) and n-Commodity (EM 2.3)
 - [10/ 1] Quiz 3 and TA session
- 4. [10/ 2] The 2x2 Exchange Economy (EM 3.1); Fundamental Welfare Theorems (EM 3.2); Edgeworth Box Bargaining Experiments (optional)
 - [10/ 8] Quiz 4 and TA session
- 5. [10/ 9] Theory of Risky Choice (EM 7.1); Eliciting Risk and Time Preference (optional)
 - [10/15] Quiz 5 and TA session
- 6. [10/16] Attitude toward Risk (EM 7.2); Principle-Agent Problem: Hidden Action (EM 7.4)
 - [10/22] Quiz 6 and TA session
- 7. [10/23] Arrow-Debreu Equilibrium (EM 8.1) and Prediction Markets (Holt, Ch. 34)
 - [10/29] Quiz 7 and TA session
- 8. [10/30] Security Market Equilibrium (EM 8.2)
 - [11/ 5] TA review session
 - [11/ 6] Midterm Exam