## Syllabus for Topics in Experimental Economics

Class Time: Monday 2:20-4:20pm, at Social Sciences 306 (社科 306 教室)

Instructor: Joseph Tao-yi Wang (josephw "at" ntu.edu.tw) Office: Social Sciences 754

Office Hours: Monday 4:20-5:20pm after class or by email appointment Instructor: Josie I Chen (josiechen "at" ntu.edu.tw) Office: Social Sciences Class website: http://homepage.ntu.edu.tw/~josephw/experimental 21F.htm

This is an introductory course on experimental economics. The purpose is to introduce experimental economics to students so they can have an overview of this field and (hopefully) start their own research. You are expected to write individual research proposals and present them. Specific goals of this course include:

- 1. <u>Introduction to experimental economics</u>: After this class, students are expected to be able to name several experiments performed in each fields of economics, and describe how the results affirm (or differ from) economic theory and/or field data.
- 2. <u>Experimental design</u>: After this class, students are expected to understand how to design and run an experiment. Students will also write a research proposal that:
  - a. Proposes an economic experiment (with sample subject instructions), satisfying:
    - i. Real Incentives (so choices have real consequences),
    - ii. A Good Control Group (to compare with Treatment group),
    - iii. Random Assignment (to the Treatment and Control groups),
    - iv. No deception (to establish reputation so real incentives are believed).
  - b. Argues why should we care about this experiment and why the experiment is designed this way (compared to other possible designs), and,
  - c. Relates your experiment to existing literature (if any) and describes expected results and/or methods to analyze the data (or simulation results).
- 3. Evaluate most current research: After this class, students are expected to develop the ability to read recent journal articles in experimental economics, and evaluate the quality of the papers. During class, students are expected to read assigned journal articles and book chapters and present one article and/or one chapter in class.

## **Assignments:**

- 1. Weekly Homework and Quizzes (30%): Weekly in-class or take-home questions.
- 2. Presentation (30%): 10-minute group oral presentation of one research article (20%) and feedback to others presenters (10%).
- 3. Final Proposal (40%): Final presentation and written proposal (<4 pages, due 1/10). Useful resources for first-time presenters: "Oral Presentation Evaluation Criteria and Checklist" for components that form a good presentation and specific areas you should provide feedback. "關於 presentation 的一些想法" on Wei-jen Hsu's blog provides a step-by-step recipe on "How to Prepare a 20-minute Presentation using 20 hours."

## Course Outline:

- 1. [9/27] 實驗經濟學簡介
  - a. Experimental Economics and Behavioral Game Theory (BGT, Ch.1; Holt; Wang)
- 2. [10/4] 市場實驗
  - a. Prediction Markets (Holt, Ch.34) and Asset Bubbles (Smith-88)
- [10/11] 國慶連假!
- 3. [10/18] 公共財實驗
  - a. Social Preferences (BGT, Ch.2; HEE2, Ch.4; UG, DG, Trust)
- 4. [10/25] 風險偏好實驗
  - a. Risk and Time Preferences (Holt, Ch.3) under Confucianism (<u>Liu-14</u>)
- 5. [11/1] 勞動經濟學實驗 (Real Effort Game)
- 6. [11/8] 現場實驗與實驗室實驗 (Field vs. Lab Experiments)
  - a. Field Experiments (Harrison--04, Glennerster-Takavarasha, Ch.1)
- [11/15] 校慶放假!
- 7. [11/22] 在現場的實驗室實驗(客座講員:劉美辰 Elaine Liu)
- 8. [11/29] 實驗設計、實驗問題與研究倫理
  - a. Basic Principles of Experimental Design (BGT, A1.2)
  - b. Experimetrics (Moffatt-19)
  - c. Market Design (坂井豐貴-14; Jackson-13; HEE2, Ch.5)
- 9. [12/6] 賽局中的學習、最小唯一者勝(LUPI)
  - a. LUPI (Ostling-11; Mohlin-20)
  - b. (Flipped) Mixed-Strategy Equilibrium (BGT, Ch.3)
- 10. [12/13] 即時談判:過程與情緒
  - a. Bargaining Process (Chen-21) and Emotions in Court (Hung-21)
  - b. (Flipped) Bargaining (BGT, Ch.4)
- [12/20] 分組報告一篇 paper (小組跟個人都打分數)
- 11. [12/27] 眼動觀察決策過程:空間選美預測賽局
  - a. Eyetracking Spatial Beauty Contest (Chen-2018, Wang-2021)
  - b. (Flipped) Dominant Solvable Games (BGT, Ch.5)
  - c. (Flipped) Level-k Thinking (Crawford-13)
  - d. (Flipped) Neuroeconomics (HEE2, Ch.3; Krajbich-14; Chen-Wang-19)
- [1/3] 期末實驗提議報告 Proposal Presentation (繳交期限 Due 1/10)

Textbook: BGT - Camerer (2003), Behavioral Game Theory, Princeton University Press.

## Other Recommended Reading:

- 1. Kagel and Roth, ed. (1995/2016), <u>Handbook of Experimental Economics</u>, Vol. 1 and Handbook of Experimental Economics, Vol. 2, Princeton University Press (HEE1/2).
- 2. Holt (2019), <u>Markets, Games and Strategic Behavior: An Introduction to Experimental Economics</u>, Princeton University Press. (Holt; Undergraduate text)
- 3. Moffatt (2016), Experimetrics: Econometrics for Experimental Economics, Palgrave.