



# EE&ME

## Experimental Economics

### 4th Module, 2018

#### Course Information

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##### **1.1. Instructor: David Ong**

Office: PHBS Building, Room 708

Phone: 86-755-2603- 2655

Email: dvdong@gmail.com

Office Hour: Monday-Friday 4:00pm-5:00pm by appointment.

##### **1.2. Teaching Assistant:**

Phone: TBA

Email: TBA

##### **1.3. Classes:**

Lectures: Mon & Thur 10:30am-12:20pm

Venue: PHBS Building, rm tba

## 2. Course Description

##### **1.1. Course overview:**

This is a research orientated course. It will be run largely like a workshop, where I will first lecture about the basics, then help you find some topic to work on for your presentations. The first presentation will be a literature review. This is a chance for you to check and complete your understanding. The 2nd will be a design of an experiment. There is no content restriction for possible presentation topics. Thus, you could present on a theoretical paper in finance for your 1st presentation, and then talk about your experimental design based upon that paper in your 2nd presentation. I will offer you a menu of papers, help you find an interesting topic, related literature and structure the proposal.

The first part of this course will cover the basics of experimental design, which should be useful not just for the thesis, but also for designing randomized trials in marketing, management and finance. After the basics, if there is time before your presentations, I will illustrate the design issues covered lectures with my own research.

- Chen, Zhuoqiong Charlie, David Ong, and Roman M. Sheremeta. 2015. "The Gender Difference in the Value of Winning." *Economics Letters* 137(2015): 226–29.
- Ong, David, and Jue Wang. 2015. "Income Attraction: An Online Dating Field Experiment." *Journal of Economic Behavior and Organization* 111(March): 13–22.
- Ong, David. 2015. "Education and Income Attraction: An Online Dating Field Experiment." *Applied Economics* November(20): 1–5.
- Ong, David, Yu Yang, and Junsen Zhang. 2018. "Hard to Get: The Scarcity of Women and the Competition for High-Income Men in Chinese Cities." *Working Paper*.
- Ong, David, and Yu Yang. 2018. "Marrying up: The Tradeoff between Spousal Income and Spousal Height." *Working Paper*.
- Ong, David, Yu Yang, and Junsen Zhang. 2018. "When to Wait for Mr. Right: Selection and Adverse Selection in Marriage Markets." *Slides*.

### **1.2. Prerequisites:**

The course has no formal prerequisites.

### **1.3. 1.2 Textbooks and Reading Materials**

The course will be based on my lecture notes which I will distribute before classes.

## **3. Learning Outcomes, Assessment/Grading Details**

Research is risky, and the quality of an idea can be hard to judge at the beginning. Furthermore, it's hard to come up with something interesting if it's not fun. Thus, to encourage you to choose a fun topic and to hedge you against risk, a lot of your grade will depend on things that require only diligence, e.g., attendance and class participation.

About 80% of the course grade will be based on the two presentations: 5% for the topic, 35% for the literature review and 40% for a research proposal. The literature review will be judged on your ability to present one or two papers and to answer related questions from me and the rest of the class. The research proposal will be judged on the originality, feasibility (i.e., low cost, and interestingness of the research idea. Both must be submitted to me the day before your presentation. They will then be distributed to the class.

Since this is a research orientated course, and the beginning of research is questioning and independent thinking, your participation in questioning is important for your learning. To encourage you to speak up, I will record your questions and comments in class. Students will then be ranked based on this record and be allotted the 5% accordingly. A further 15% of the grade is based on a quiz to check for basic understanding of the material, which requires minimal preparation to do well, given steady participation. Thus, the total percentage of credit for the course is as follows:

- Class attendance and participation 5%
- Midterm Quiz 10%
- Presentation 1 35%
- Presentation 2 35%
- Final Quiz 15%

Actual implementation of the research design in Presentation 2 to a pilot study using actually data, though not required, is eligible for a possible 10% bonus points. I have funding for promising designs.

## **4. Topics of lectures**

1. Why do we need (controlled) experiments?
2. Why learn experimental economics?
3. Why do experiments?
4. Establishing causation
5. Experiments and simulations
6. Experiments and surveys
7. Two kinds of experiments
8. Criticism of experimental economics
9. Formulating an experimental Idea
10. Theory in experiments
11. Description and theory
12. Comparative static results
13. Mechanics of experimental design
14. Reporting ex-post theories
15. Incorporating theory into experimental design
16. Experimental design
17. Instructions
18. Paying subjects
19. Between and within subject designs
20. Eliciting choice
21. Randomness
22. Validity
23. Randomization
24. Nuisance and focus variables
25. Losing independence
26. Checks on methodology
27. When surveys can be relied upon
28. Common pitfalls

- 29. Psychological biases
- 30. Common drivers of behavior
- 31. Checklist for experimental design
- 32. Field experiments
- 33. Forms of causation
- 34. Inferences from observables
- 35. Common confusions
- 36. Ways of dealing with experimenter demand

## **5. Rules for Course**

Lecture notes will be provided, so laptops must be closed and cell phones turned off. Past experience suggests that if a student misses classes, the quality of their class participation will be poor, and their presentations will be a waste of time for everyone. Therefore, attendance is mandatory, with exceptions for student's documented medical emergency and job interviews. There will be plenty of office hours. However, students are required to send me an email of their notes so we have a permanent record.