

ECO 7381
Experimental Economics
Fall 2017

Professor: Tim Salmon
Office: ULC 301E, 214-768-3547
Email: tsalmon@smu.edu

Meeting Times: T Th 3:30 – 4:50 PM
Location: ULC 303
Office Hours: T 2:00-3:00 PM

Course Description:

The focus of this class will be to cover the basic methodological issues in conducting economic experiments. We will also demonstrate how those tools can be applied to many different fields of economic study. The main point of the course is to teach you how to conduct research in general, not just research using experiments. In going through each of the papers for the class and in discussing the methodological concepts we will be trying to uncover the methods behind what makes a good research paper, how does one come up with the idea for a good paper and what are the key components of any research exercise.

Course Texts: These books are not required but highly recommended for providing background for several sections of the class.

1. John Kagel and Al Roth, *The Handbook of Experimental Economics*. Princeton University Press. ISBN: 0691058970.
2. Nicholas Bardsley, Robin Cubitt, Graham Loomes, Peter Moffatt, Chris Starmer and Robert Sugden, *Experimental Economics: Rethinking the Rules*. Princeton University Press. ISBN: 9780691124797.

Student Learning Outcomes

By the completion of the course the students should be able to do the following:

1. Explain the principles behind experimental economics.
2. Evaluate and design economics experiments.
3. Be able to identify research questions in papers and evaluate whether the authors have provided sufficient answers.
4. Be able to evaluate a literature critically and determine what important elements may be missing that could lead to future research.

Grading:

Grades in this class will come from multiple sources. There will be two substantial writing projects for the course. The first will be a critical literature review and the other will be an experiment design, worth 30% each. There will also be two class presentations required each worth 15%. One of the class presentations will be the student presenting one of the papers from the syllabus to the class. The other presentation will be an in class summary presentation of the literature review project. The final 10% will come from students providing a referee report on the experimental design paper submitted by another student.

The in class paper presentation can be done at any point during the semester. As early as possible, students should identify which paper they would like to present from the syllabus and get it approved by me. Not all are suitable for student presentations. The presentation will occur when that paper comes up in the semester. The idea for this presentation is that the student will take over lecturing for the day and present the paper to the class. It should be noted that simply reading the one paper will often not be enough preparation for the lecture. To present one paper, you often need to become familiar with the background papers it relates to so that this paper can be framed in better context. Presentations will be expected to be complete and presenters

will be expected to be prepared to answer reasonable questions about the paper they are presenting and its place in the relevant literature.

For the literature review project students will be expected to read, summarize and critique 8-10 prominent papers from the segment of the experimental literature of their choice. While students can choose fields among those discussed in class, they are also free (and encouraged) to choose areas not covered by the course. The literature is broad enough to include any field you might be interested in including macro, health, education, labor, trade, finance and many more. If a field covered in class is chosen, the papers on the syllabus do not count towards the required amount. Students should get their topic approved by me by **September 14th**. This should consist of turning in a paragraph or two summarizing the literature you propose to review and explaining why you want to review it. Students should begin thinking about topics earlier and are welcome to talk with me for advice. Literature surveys will be due on **October 26th**.

These reviews are intended to be **critical** literature surveys which means you should not simply list papers and explain paper by paper what was done. The goal of the project is for you to examine a literature and determine (i) What are the main economic questions the literature is attempting to address? (ii) What are the methods employed in the literature? (iii) What answers to the key questions have been provided? (iv) Do those answers seem reliable and when there are multiple ones, why do they conflict? (v) Are there remaining important questions that should be addressed in the literature? **Any paper that fails to address these issues in regards to the literature as a whole (NOT just for individual papers) and instead simply provides a disconnected summary of papers will receive a failing mark.** Often you will find that assessing the quality of answers in a literature will require you to read and examine more than just a few papers. Thus while you will need to have at least 8-10 papers cited as main references, you will almost certainly need to read more papers than that in part so that you can identify which are the 8-10 key papers in a literature. This is expected and you are expected to do so to develop a mature understanding of the issue.

As you read papers, you will undoubtedly see the literature surveys in each one. Note how they (hopefully) deal with each of these issues and it should provide a good model for you, though yours should be more extensive than what would show up in the introduction of a paper. This literature survey should be written as a full paper. There needs to be a narrative structure to it in which you introduce the key questions in the literature and motivate why they are interesting and worth addressing. This should be done from your perspective in analyzing the literature, not simply quoting from papers. The paper needs to present your point of view on the literature. In providing an overview of the literature, you need to put the papers in the literature into some sort of organizational structure by grouping similar papers together and noting what one learns from them that might be different from other groups of papers. Since this point is often misunderstood, let me re-state this again: **ANY PAPER THAT SIMPLY PROVIDES A DISCONNECTED SUMMARY OF PAPERS WILL FAIL.**

Once these have been turned in, I will review them for completeness and begin scheduling times for in class presentations which should take place in the last 2-3 course meetings. Literature surveys I decide are not complete enough will be required to be improved prior to the class presentation. The class presentations will be aimed at 20-30 minute talks in which your goal should be to concisely provide answers to the key questions mentioned above. For the presentation in particular you should not plan to cover the details of every paper rather the idea is to provide a concise overview of the literature in which you address the key questions noted above. Again, these are intended to be critical reviews so I want you to not just summarize what was done but provide comments about the appropriateness and strengths/weaknesses of the methods in the papers.

If you have questions regarding the structure of the literature review paper or presentation as you are working on them, feel free to discuss the matter with me and I will be happy to provide guidance.

The final project for the class will be an original experimental design. This project will involve several stages. Generally it is a good idea for this experimental design to be related to the literature review but it need not be. By **October 17th** you should submit a maximum one page proposal stating the question you wish to address with your design and a short summary of your idea. Assuming that is approved by me then you should turn in a first draft of this project on **November 16th**. The papers turned in should be the equivalent of full papers just missing results sections. This means you will need an introduction in which you state the question you wish to address and motivate why it is worth examining. You need to provide a review of the relevant literature noting what aspects of the question have and have not been previously addressed. You should present your experimental design as well as a set of hypotheses about potential results from the experiment along with support for those hypotheses. The support could involve constructing a model of the theoretical situation and solving it or it could involve borrowing the theory from another paper and showing how your design proposes to test it.

When these drafts are turned in, I will randomly shuffle the projects and hand them out to the class before I have read them myself. I will then expect each student to turn into me a referee report on the project they have been assigned in which the student critically evaluates the project. You should expect to comment on how well the paper does at satisfying the components mentioned above and provide suggestions for how the author might improve the project. This referee report will be graded by me and is due on **November 22nd**. These reports will be passed along to the original authors allowing them to revise their first drafts. Final versions of the papers will be due on **December 5th**. These should include not just the final version of the paper but also a separate narrative response to how the paper was edited to respond to the referee comments. This process of providing and responding to referee comments is an important part of the publication process and having you go through the full cycle should be helpful in teaching you how this works in the profession.

Course Outline:

Papers to be covered are indicated by having dates attached to them. These are the approximate dates the paper will be covered. You are expected to have read the paper and come to class ready to discuss it. Adjustments to the schedule will be announced in advance.

1. Introduction to Experiments
 - a. Roth, Alvin. Chapter 1 K&R
 - b. Barsdley et al. Chapters 1-4.
 - c. Roth, Alvin. 1993 "On the Early History of Experimental Economics," *Journal of the History of Economic Thought*, 15, 184-209.
 - d. Samuelson, Larry, 2005 "Economic Theory and Experimental Economics," *Journal of Economic Literature*, 43: 65-107. **8/24**
 - e. Smith, Vernon, 1982. "Microeconomic Systems as an Experimental Science", *American Economic Review*, vol. 72. no. 5, pp. 923-955.
 - f. Smith, Vernon, 1962. "An Experimental Study of Competitive Market Behavior," *Journal of Political Economy*, Vol 70 No 2, pp 111-137. **8/24**
2. Auction Experiments
 - a. Overview of Auction/Mechanism Design Theory **8/29 & 8/31**
 - i. Klemperer, Paul, 1999, "Auction Theory: A Guide To the Literature," *Journal of Economic Surveys*, Vol. 13 No. 3, pp. 227-285. (NOTE: pay special note to Appendices)
 - ii. Milgrom, Paul R. and Robert J. Weber, 1982 "A Theory of Auctions and Competitive Bidding," *Econometrica*, Vol. 50 No. 5, pp. 1089-1122.
 - iii. Vickrey, William, 1961 "Counterspeculation, Auctions, and Competitive Sealed Tenders," *Journal of Finance*, Vol. 16, pp. 8-37.
 - iv. Maskin, Eric S, 2008 "Mechanism Design: How to Implement Social Goals," *American Economic Review*, Vol. 98 No. 3. pp. 567-576.

- v. Hurwicz, Leonid, 2008 “But Who Will Guard the Guardians?,” *American Economic Review*, Vol. 98 No. 3 pp. 577-585.
 - vi. Myerson, Roger B., 2008 “Perspectives on Mechanism Design in Economic Theory,” *American Economic Review*, Vol. 98 No. 3, pp. 586-603.
 - vii. Bulow, Jeremy and John Roberts, 1989 “The Simple Economics of Optimal Auctions,” *Journal of Political Economy*, Vol. 97 No. 5, pp. 1060-1090.
 - viii. Myerson, Roger B, 1981 “Optimal Auction Design,” *Mathematics of Operations Research*, Vol. 6 No. 1, pp. 58-73.
- b. Kagel Chapter in K&R
 - c. Cox, James C., Bruce Roberson and Vernon L Smith, 1982 “Theory and Behavior of Single Object Auctions,” *Research in Experimental Economics*, Volume 2, pages 1-43 **9/5**
 - d. Kagel, J. H. and D. Levin. 1986. “The Winner's Curse and Public Information in Common Value Auctions,” *American Economic Review*, 76:894-920. **9/5**
 - e. Chang, Wei-Shiun, Bo Chen and Timothy C. Salmon. “An Investigation of the Average Bid Mechanism for Procurement Auctions,” *Management Science*. Vol. 61 No 6 (2014): 1237-1254. **9/7**
 - f. Phillips, Owen R., Dale J. Menkhaus and Kalyn T. Coatney, 2003 “Collusive Practices in Repeated English Auctions: Experimental Evidence on Bidding Rings,” *The American Economic Review*, vol. 93, no 3, pp. 965-979.
 - g. Esponda, Ignacio and Emanuel Vespa, 2014 “Hypothetical Thinking and Information Extractions in the Laboratory,” 6(4): 180-202. **9/12**
3. Preference Elicitation: Fairness, risk and time preferences.
- a. Fehr, E. and Schmidt, K. (1999). A Theory of Fairness, Competition and Cooperation. *Quarterly Journal of Economics* 114: 817-68. **9/14**
 - b. Bolton, G. and Ockenfels, A. (1999). A Theory of Equity, Reciprocity, and Competition. *American Economic Review* 100: 166-93. **9/14**
 - c. Bolton, G. and Ockenfels, A. (2005). A stress test of fairness measures in models of social utility. *Economic Theory* 25: 957-982.
 - d. Cox, James C and Klarita Sadiraj and Vjollca Sadiraj. (2008). Implications of Trust, Fear and Reciprocity for Modeling Economic Behavior. *Experimental Economics* 11:1-24. **9/19**
 - e. Dana, Jason and Roberto A. Weber and Jason Xi Kuang, 2007 “Exploiting Moral Wriggle Room: Experiment Demonstrating an Illusory Preference for Fairness,” *Economic Theory* Vol. 33, pp. 67-80. **9/19**
 - f. Andersen, Steffen, Glenn Harrison, Morten Lau and Elisabet Rutstrom 2006 “Elicitation using Multiple Price List Formats,” *Experimental Economics* Vol 9 No. 4 pp 383-405. **9/21**
 - g. Andreoni, James and Charles Sprenger. 2012 “Estimating Time Preferences from Convex Budgets,” *American Economic Review*, Vol 102, Number 7. Pp. 3333-3356. **9/26**
 - h. Dohmen, Thomas, Armin Falk, David Huffman, Uwe Sunde, Jurgen Schupp and Gert Wagner 2011 “Individual Risk Attitudes: Measurement, Determinants and Behavioral Consequences,” *Journal of the European Economic Association*. Volume 9 No 3. Pp 522-550. **9/28**
 - i. Dohmen, Thomas, Armin Falk, David Huffman and Uwe Sunde 2010 “Are Risk Aversion and Impatience Related to Cognitive Ability?” *American Economic Review* Vol 100 pp. 1238-1260. **9/28**
4. External Validity: Lab Experiments vs. Field Experiments
- a. Bardsley et al. Chapters 5 & 8.
 - b. Levitt, Steven and John A List 2007 “What do laboratory experiments Measuring Social Preferences Tell Us About the Real World,” *Journal of Economic Perspectives*, Vol 21, Number 2 pp 153-174 **10/3**

- c. Kessler, Judd and Lise Vesterlund. 2011 “The External Validity of Laboratory Experiments: Qualitative rather than Quantitative Effects” Forthcoming in “Methods of Modern Experimental Economics”, edited by Guillaume Frechette and Andrew Schotter, Oxford University Press. **10/3**
 - d. Camerer, Colin. 2011 “The Promise and Success of Lab-Field Generalizability in Experimental Economics: A Critical Reply to Levitt and List.” Forthcoming in “Methods of Modern Experimental Economics”, edited by Guillaume Frechette and Andrew Schotter, Oxford University Press.
 - e. Frechette, Guillaume. 2011 “Laboratory Experiments: Professionals versus Students.” Forthcoming in “Methods of Modern Experimental Economics”, edited by Guillaume Frechette and Andrew Schotter, Oxford University Press.
 - f. Falk, A. and Heckman, J. (2009). Experiments Are a Major Source of Knowledge in the Social Sciences, *Science*, 326: 535-538. **10/3**
 - g. Schram, A.(2005). Artificiality: The Tension between Internal and External Validity in Economic Experiments, *Journal of Economic Methodology*, 12: 225-237.
5. IO Experiments
- a. Holt Chapter in K&R
 - b. Hong, James T., and Charles Plott, “Rate Filing Policies for Inland Water Transportation: An Experimental Approach,” *Bell Journal of Economics*, Volume 13 (Spring 1982), pages 1-19. **10/5**
 - c. Cason, Timothy N and Daniel Friedman 2003 “Buyer Search and Price Dispersion: A Laboratory Study,” *Journal of Economic Theory*, Vol 112, No 2, pp 232-260. **10/12**
6. Asset Markets and Finance
- a. Smith, Vernon L. and Gerry L. Suchanek and Arlington W. Williams, (1988) “Bubbles, Crashes and Endogenous Expectations in Experimental Spot Asset Markets,” *Econometrica* 56(5):1119-1151. **10/17**
 - b. Haruvy, Ernan, Yaron Lahav, and Charles N. Noussair. 2007. “Traders' Expectations in Asset Markets: Experimental Evidence.” *American Economic Review*, 97(5): 1901-1920. **10/17**
 - c. Palan, S. (2013), “A Review of Bubbles and Crashes in Experimental Asset Markets,” *Journal of Economic Surveys*, 27: 570–588
7. Electronic Markets
- a. Bolton, Gary and Ben Greiner and Axel Ockenfels (2013), “Engineering Trust: Reciprocity in the Production of Reputation Information” *Management Science* 59(2): 265-285. **10/24**
 - b. Salmon, Timothy C. and Bart Wilson. (2008) “Second Chance Offers Vs. Sequential Auctions: Theory and Behavior,” *Economic Theory*, 34(1): 47-67. **10/26**
8. Labor Market Experiments
- a. Nalbantian, H., and Schotter, A. (1997). Productivity under group incentives: An experimental study. *American Economic Review*, 87:314-341 **10/31**
 - b. Shearer, B. (2004). Piece rates, fixed wages and incentives: evidence from a field experiment, *Review of Economic Studies*, 71:513-534. **10/31**
 - c. Fehr, Ernst, Georg Kirchsteiger and Arno Riedl 1993 “Does Fairness Prevent Market Clearing? An Experimental Investigation,” *The Quarterly Journal of Economics*, Vol 108, No 2 pp 437-459. **11/2**
 - d. Hennig-Schmidt, H., B. Rockenbach, and Sadrieh, A. 2010 “In Search of Workers’ Real Effort Reciprocity - A Field and a Laboratory Experiment,” *Journal of the European Economic Association*, Vol. 8, pp. 817 – 837. **11/2**
 - e. Dutcher, Glenn, Timothy C. Salmon and Krista Jabs Saral. “Is ‘Real’ Effort More Real?” Working Paper. **11/7**
9. Behavioral Experiments

- a. Camerer chapter in K&R
 - b. Chen, Yan and Xin Li, 2009, "Group Identity and Social Preference," American Economic Review, 99:1, 431-457. **11/9**
 - c. Nagel, Rosemarie, 1995, "Unraveling in Guessing Games: An Experimental Study," The American Economic Review, 85:5, 1313-1326. **11/14**
 - d. McKelvey, Richard D., and Thomas R. Palfrey, 1995 "Quantal Response Equilibria for Normal Form Games," Games and Economic Behavior, 10:1 (July), 6-38. **11/14**
10. Public Goods
- a. Ledyard Chapter in K&R
 - b. Isaac, R. Mark and James Walker, 1988, "Group Size Effects in Public Goods Provision: The Voluntary Contributions Mechanism," Quarterly Journal of Economics, 103(1), pp. 179-199. **11/16**
 - c. Houser, Daniel and Robert Kurzban, 2002, "Revisiting Kindness and Confusion in Public Goods Experiments," American Economic Review, 92:4, 1062-1069. **11/16**
 - d. Ahn, T.K., Mark Isaac and Timothy C. Salmon. Endogenous Group Formation, Journal of Public Economic Theory, Vol. 10, No. 2 (2008): 171-194.
11. Doing Experiments with Endogenous Selection – **11/21 read one in this set.**
- a. Ivanova-Stenzel, Radosveta and Timothy C. Salmon. Revenue Equivalence Revisited. Games and Economic Behavior, Vol 64, No. 1 (2008): 171-192.
 - b. Prasad, Kislaya and Timothy C. Salmon. Self-Selection and Market Power in Risk Sharing Contracts. Journal of Economic Behavior & Organization. Vol. 90 (2013): 71-86.
 - c. Ku, Hyejin and Timothy C. Salmon. Procedural Fairness and the Tolerance for Income Inequality. European Economic Review. Vol 64 (2013):111-128.
 - d. Johnson, David and Timothy C. Salmon. Sabotage vs Discouragement: Which Dominates Post Promotion Tournament Behavior? Accepted at Southern Economic Journal.
12. Experiments with Communication
- a. Cooper, David J., and John H. Kagel. 2005. "Are Two Heads Better Than One? Team versus Individual Play in Signaling Games." American Economic Review, 95(3): 477-509. **11/30**
 - b. Houser, Daniel and Erte Xiao. 2011. "Classification of Natural Language Messages Using a Coordination Game." Experimental Economics, 14 (1): 1-14. **11/30**

University Policies

- * **Disability Accommodations:** Students needing academic accommodations for a disability must first contact Ms. Rebecca Marin, Coordinator, Services for Students with Disabilities (214-768-4557) to verify the disability and establish eligibility for accommodations. They should then schedule an appointment with the professor to make appropriate arrangements. (See University Policy No. 2.4.)
- * **Religious Observance:** Religiously observant students wishing to be absent on holidays that require missing class should notify their professors in writing at the beginning of the semester, and should discuss with them, in advance, acceptable ways of making up any work missed because of the absence. (See University Policy No. 1.9.)
- * **Excused Absences for University Extracurricular Activities:** Students participating in an officially sanctioned, scheduled University extracurricular activity should be given the opportunity to make up class assignments or other graded assignments missed as a result of their participation. It is the responsibility of the student to make arrangements with the instructor prior to any missed scheduled examination or other missed assignment for making up the work. (University Undergraduate Catalogue)