Preliminary Syllabus for Economics 603 (second half) Fall 2022–2023

Official Matters

Economics 603 is the first semester of the Economics Department's two-semester core sequence in *Microeconomics*. This course is taken by all first-year Economics Ph.D. students, as well as by quite a few Ph.D. students in Agricultural & Resource Economics, the Smith School of Business, and other academic departments. The first half of the semester treats consumer theory and the theory of the firm. The second half of the semester is an introduction to game theory and its applications in economics.

Problem sets, solutions to problem sets, transparencies and online copies of readings (where available) will be posted on ELMS:

https://elms.umd.edu/

There will be 6 problem sets for the second half of the course. For your reference, all of the previous year's problem sets are currently posted on ELMS. However, there will be some new questions added to some of the problem sets. You should refer to the most recent version at the time of doing the problem sets—the most recent version will be dated "Fall 2022 – 2023". There will be written solutions made available to many of the problems contained in the problem sets—but your main source of solutions for one or two questions from each problem set will be to attend the weekly Discussion Section.

Halloween will be observed early in Econ 603, on Thursday October 27. Wear a mask to class!

The course is intended to be held in person this semester. However, the professor reserves the right to move the course online at any time and for any reason, in which case you will be notified by email of the contingency plan, including a Zoom link.

The University's Course-Related Policies will be followed, including all Covid-19-related policies posted on the 4Maryland website and the HEAL line website. Any student not abiding by these directives may be in violation of the Code of Student Conduct, Part 10(e)(3): Failure to comply with a directive of University officials.

If you are sick, test positive for COVID-19, or think you may have been in contact with someone who has COVID-19, please stay home and let me know so that appropriate accommodations for the missed classes can be made.

The final exam will be held at 10:30 am – 12:30 pm on Thursday, December 15, 202 (*which is not the ordinary final exam slot for this class time*). The room will be announced later.

Texts

R. Gibbons, **Game Theory for Applied Economists**, Princeton Univ. Press, 1992 (paperback).

A. Mas-Colell, M. Whinston and J. Green (henceforth "MWG"), **Microeconomic Theory**, Oxford Univ. Press, 1995.

Instructors and Course Times

Professor: Lawrence Ausubel (ausubel@umd.edu)

Lectures: Tuesdays/Thursdays 2:00 – 3:15 pm in Tydings 1118

Teaching Assistant: Shanglyu Deng (sdeng1@umd.edu)

Discussion Sections: Tuesdays 5:15 – 6:45 pm in Tydings 1132

Office Hours

Professor Ausubel's Office Hours: Thursdays 12 noon – 1:30 pm in Tydings 4130C or on Zoom

Shanglyu Deng's Office Hour: Tuesdays 9:55 am to 10:55 am in Tydings 4128 or on Zoom

[Syllabus for First Half of Course](#)

Topics for Second Half of Course (approximately two weeks per topic)

1. **Oligopoly and Static Games of Complete Information**

   Gibbons, chapter 1
   MWG, pp. 943-953 (continuity, compactness, correspondences and fixed-point theorems)
   MWG, pp. 383-400 (especially pp. 395-400)
   [*For a second reading (e.g., while preparing for comps): MWG, pp. 217-253 and 260-261.*]

   Supplemental reading:
   Tirole, J., "Product Differentiation: Price Competition and Non-Price Competition," chapter 7 of *The Theory of Industrial Organization*, MIT Press, 1988

   Problem Sets #7-8 Assigned

2. **Dynamic Games of Complete Information**

   Gibbons, chapter 2
   Rubinstein, A., "Perfect Equilibrium in a Bargaining Model," *Econometrica*, 1982, 97-109
   [*For a second reading (e.g., while preparing for comps): MWG, pp. 267-282, 296-299, and 400-423.*]

   Supplemental reading:
   Binmore, K., "Making Deals," chapter 5 of *Fun and Games*, D.C. Heath & Co., 1992
   Coase, R., "The Problem of Social Cost," *Journal of Law and Economics*, 1960

   Problem Sets #9-10 Assigned

3. **Static Games of Incomplete Information**

   Gibbons, chapter 3
   Ausubel, L. (2003), "Auction Theory for the New Economy" (short survey aimed toward grad students)
   [*For a second reading (e.g., while preparing for comps): MWG, pp. 253-260.*]

   Supplemental reading:
   Milgrom, P., "Auctions and Bidding: A Primer," *Journal of Economic Perspectives*, Summer 1989, 3-22
   Ashenfelter, O., "How Auctions Work for Wine and Art," *Journal of Economic Perspectives*, Summer 1989, 23-36
   Vickrey, W., "Counterspeculation, Auctions, and Competitive Sealed Tenders," *Journal of Finance*, 1961, 8-37
   Ausubel, L., "An Efficient Ascending-Bid Auction for Multiple Objects," *American Economic Review*, December 2004, 1452-1475
   Ausubel, L. and Milgrom, P., "The Lovely but Lonely Vickrey Auction," Chapter 1 of *Combinatorial Auctions* (P. Cramton, Y. Shoham, and R. Steinberg, eds.), Cambridge: MIT Press, 2006, 17-40

   Problem Sets #11-12 Assigned

4. **Dynamic Games of Incomplete Information**

   Gibbons, chapter 4
   Spence, A.M., "Job Market Signaling," *Quarterly Journal of Economics*, 1973, 355-374
   [*For a second reading (e.g., while preparing for comps): MWG, pp. 282-296 and 436-460.*]