

Professor: John Nachbar
Fall 2011

Econ 503 -Part B Syllabus

1 Introduction

This half of 503 covers three topics: topics in information economics, basic consumer theory, and demand aggregation.

2 Requirements.

I will try to assign frequent homework. Hand in homework to Sonya Woolley in Seigle 350 by 5pm on the due date.

I use homework to break ties. If I have two students with almost identical test averages, both close to a cutoff, but one has been diligent about homework and the other has not, then I will give the student with the better homework the higher grade. Some of the homework questions are intended to be instructional; you may find them challenging.

You are *encouraged* to work together. It is perfectly fine to get answers from somebody else, *provided* that you tried to do it yourself first. I *expect* those with more math experience to help the other students.

Regardless of how you come by your answer, *you must write up the answer on your own*. I want to be able to give you feedback on proper writing style, so that you are prepared to write well for tests (not least of which is the prelim).

The exam for this part of 503 will be Monday, Dec 19, 10:30-12:30, probably Seigle 103 but the room has not yet been assigned. The exam will be closed book, meaning that you may not consult the text, your notes, or any other material, nor may you communicate with each other while taking the test. The test will be based primarily on homework and class notes (rather than on the text or supplemental reading).

I will not offer a makeup exam. Valid excuses for missing the exam include a verified illness or special family circumstances (e.g. death of a member of the immediate family). To be excused from the exam, you must give notification *before the exam begins* either to me or to the graduate secretary, Sonya Woolley. If you are excused, your course grade will then depend on your homework grade and on your performance on the second 503 exam.

3 Outline

The primary text is Mas-Colell, Whinston, and Green (1995). My notes will be self-contained. Use the text as a reference and supplement, not as a substitute.

1. Topics in Information Economics. MWG 13 (Except 13.C; *no signaling*), 14, and 23. My coverage of lemons models and agency will be close to MWG.
 - (a) A simple lemons model.
 - (b) Agency.
 - (c) *Ex-post* efficient mechanisms. My notes are closer to Krishna (2009) rather than to MWG.
2. Competitive demand and supply. MWG 2, 3.D-J, 5. *Remark*. There is a close but subtle relationship between the material in 2.F and the material in 3.G. I will be emphasizing the 3.G material. I'm going to assume you already know the material in 3.A-C.
 - (a) Utility maximization, Marshallian demand, indirect utility, expenditure, Hicksian demand, and the key equalities.
 - (b) The weak axiom and properties of individual demand.
 - (c) Integrability.
 - (d) Compensating and equivalent variation. I may assign homework on this without covering it explicitly in class.
 - (e) Production. I may assign homework on this without covering it explicitly in class.
3. Topics in Aggregation. MWG 4 and 17E.
 - (a) Demand with endogenous income.
 - (b) Demand aggregation.

4 Texts.

The default text for graduate microeconomics courses, both here and elsewhere, is Mas-Colell, Whinston, and Green (1995); it is comprehensive (although now becoming somewhat dated), authoritative, and well organized. You may, however, find it overwhelming. Other first-year graduate microeconomics texts are Kreps (1990), Varian (1992), Jehle and Reny (2000).

The standard graduate game theory text is Fudenberg and Tirole (1991).

A good resource are the relevant chapters in Durlauf and Blume (2008). These chapters are relatively short, relatively non-technical surveys targeted at first year

graduate students and non-specialists. One option would be to buy all of Durlauf and Blume (2008); Amazon currently lists it for \$2,800. I recommend, however, accessing Durlauf and Blume (2008) for free online through the WUStL library.

See Bolton and Dewatripont (2005) for contract theory. On mechanism design, I will be following Krishna (2009) rather than Mas-Colell, Whinston, and Green (1995). See also Milgrom (2004).

5 Help.

There will be a review session on Fridays run by our TA, Yu-Hung Chen, in Seigle 103, from 10:00-11:30. I will run a review session before the exam.

Yu-Hung will hold office hours Mondays, 1 to 2:30PM on Tuesday in Seigle 358.

My office hours are Tuesdays from 1:30-3pm or by appointment. e-mail is the best way to reach me.

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I stress that I want you to come to office hours if you are having difficulty, or if you simply want to talk about some aspect of the course.

References

- BOLTON, P., AND M. DEWATRIPONT (2005): *Contract Theory*. MIT.
- DURLAUF, S. N., AND L. E. BLUME (eds.) (2008): *The New Palgrave Dictionary of Economics*. Palgrave.
- FUDENBERG, D., AND J. TIROLE (1991): *Game Theory*. MIT Press, Cambridge, MA.
- JEHLE, G. A., AND P. J. RENY (2000): *Advanced Microeconomic Theory*. Addison Wesley, second edn.
- KREPS, D. (1990): *A Course in Microeconomic Theory*. Princeton University Press, Princeton, NJ.
- KRISHNA, V. (2009): *Auction Theory*. Academic Press, second edn.
- MAS-COLELL, A., M. D. WHINSTON, AND J. R. GREEN (1995): *Microeconomic Theory*. Oxford University Press, New York, NY.
- MILGROM, P. (2004): *Putting Auction Theory To Work*. Cambridge University Press.
- VARIAN, H. R. (1992): *Microeconomic Analysis*. W.W. Norton, New York, third edn.