

Joel Sobel  
Fall 2005

### **Economics 206: Decisions**

**General:** This course will meet on Monday and Wednesday from 2:00 to 3:20 in 210 Economics. I will have office hours from 1:00 to 2:00 on Monday and Wednesday in 311 Economics. I will be out of town on November 9 and 23 (both Wednesdays) and may be on jury duty the week of October 11 so make-up classes must be scheduled. In addition, one person has requested a more radical change of meeting time.

**Contact information:** email: [jsobel@ucsd.edu](mailto:jsobel@ucsd.edu), phone: 858.534.4367, web page for class material:

<http://www.econ.ucsd.edu/%7Ejsobel/206.html>

**Prerequisites and Expectations** The first part of the class will be an introduction to utility theory, with an emphasis on individual decision making under certainty. The second part of the course will example decisions in multi-agent settings. I am not sure how long we will spend on each topic.

The material is theoretical. 200ABC should be sufficient (but probably not necessary) background in microeconomics. Ability to follow and produce mathematical arguments is essential.

My lectures will vary in style. Sometimes I will provide complete details of mathematical results, but more often I will try to convey an understanding of what the results mean. Students must consult texts and readings for details and work problems to make sure that they can read and write technical arguments.

**Requirements and Grading:** I expect four things:

1. Students should do the readings and come to class prepared to ask and answer questions.
2. Students should complete several problem sets, which can be done in groups of two to three.
3. In pairs (if the enrollment is even), students should make a one-hour presentation of course material. Students should see me by the end of the third week of classes to discuss potential topics and relevant reading.
4. Students should write a short (no more than ten pages) paper. The paper can be a substantial review of a paper or papers related to the course material, solutions to challenging problems, or a research essay (or detailed proposal).

I do not know how I will use this information to assign grades. If this confession creates substantial anxiety, then I will make up a formula.

## Topics and Readings

1. Ordinal Utility, Representation Theorems
  - (a) Kreps [1987, Chapters 1–3]
  - (b) Mas-Colell et al. [1995, Chapter 1, Chapter 3A–E]
2. Objective Probabilities
  - (a) Fishburn [1982, Chapters 2–3]
  - (b) Kreps [1987, Chapter 5]
3. Risk and Risk Aversion
  - (a) Kreps [1987, Chapter 6]
  - (b) Ross [1981]
  - (c) Rothschild and Stiglitz [1970]
  - (d) Rothschild and Stiglitz [1971]
4. Horse-Lace Lotteries
  - (a) Anscombe and Aumann [1963]
  - (b) Kreps [1987, Chapter 7]
5. Subjective Probabilities
  - (a) Fishburn [1982, Chapter 9]
  - (b) Kreps [1987, Chapters 8–9]
  - (c) Savage [1972, Chapters 1–5]
6. Generalized Expected Utility
  - (a) Machina [1982]
  - (b) Machina [1987]
7. Flexibility and Self-Control
  - (a) Dekel et al. [2001]
  - (b) Gul and Pesendorfer [2001]
  - (c) Kreps [1979]
8. Information Aggregation
  - (a) Austen-Smith and Banks [1996]
  - (b) Feddersen and Pesendorfer [1996]
  - (c) Feddersen and Pesendorfer [1997]

Francis J. Manabe and Robert J. Aumann. A definition of subjective probability. *Annals of Mathematical Statistics*, 34(1):199–205, March 1963.

David Austen-Smith and Jeffrey S. Banks. Information aggregation, rationality, and the condorcet jury theorem. *American Political Science Review*, 90:34–45, 1996. URL <http://links.jstor.org/sici?sici=0003-0554%28199603%2990%3A1%3C34%3AIARATC%3E2.0.CO%3B2-8>.

Eddie Dekel, Barton L. Lipman, and Ado Rustichini. Representing preferences with a unique subjective state space. *Econometrica*, 69:891–934, 2001. URL <http://links.jstor.org/sici?sici=0012-9682%28200107%2969%3A4%3C891%3ARPWAUS%3E2.0.CO%3B2-%23>.

Timothy J. Feddersen and Wolfgang Pesendorfer. The swing voter’s curse. *American Economic Review*, 86(3):408–424, June 1996. URL <http://links.jstor.org/sici?sici=0002-8282%28199606%2986%3A3%3C408%3ATSVC%3E2.0.CO%3B2-6>.

Timothy Feddersen and Wolfgang Pesendorfer. Voting behavior and information aggregation in elections with private information. *Econometrica*, 65(5):1029–1058, September 1997. URL <http://links.jstor.org/sici?sici=0012-9682%28199709%2965%3A5%3C1029%3AVBAIAI%3E2.0.CO%3B2-D>.

Peter C. Fishburn. *The Foundations of Expected Utility*. D. Reidel, Dordrecht, 1982.

Faruk Gul and Wolfgang Pesendorfer. Temptation and self-control. *Econometrica*, 69(6):1403–1435, November 2001. URL <http://links.jstor.org/sici?sici=0012-9682%28200111%2969%3A6%3C1403%3ATAS%3E2.0.CO%3B2-C>.

David M. Kreps. A representation theorem for “preference for flexibility”. *Econometrica*, 47(3):565–578, May 1979. URL <http://links.jstor.org/sici?sici=0012-9682%28197905%2947%3A3%3C565%3AARTF%22F%3E2.0.CO%3B2-Y>.

David M. Kreps. *Notes on the Theory of Choice*. Westview Press, Boulder, CO, 1987.

Mark J. Machina. “expected utility” analysis without the independence axiom. *Econometrica*, 50(2):277–323, March 1982. URL <http://links.jstor.org/sici?sici=0012-9682%28198203%2950%3A2%3C277%3A%22UAWTI%3E2.0.CO%3B2-V>.

Mark J. Machina. Choice under uncertainty: Problems solved and unsolved. *The Journal of Economic Perspectives*, 1:121–154, Summer 1987. URL <http://links.jstor.org/sici?sici=0895-3309%28198722%291%3A1%3C121%3ACUUPSA%3E2.0.CO%3B2-X>.

Andreu Mas-Colell, Michael D. Whinston, and Jerry R. Green. *Microeconomic Theory*. Oxford University Press, New York, 1995.

Stephen A. Ross. Some stronger measures of risk aversion in the small and in the large with applications. *Econometrica*, 49(3):621–638, May 1981. URL <http://links.jstor.org/sici?sici=0012-9682%28198105%2949%3A3%3C621%3ASSMORA%3E2.0.CO%3B2-G>.

Michael Rothschild and Joseph Stiglitz. Increasing risk: I. a definition. *Journal of Economic Theory*, 2:225–243, 1970.

Michael Rothschild and Joseph Stiglitz. Increasing risk: II. its economic consequences. *Journal of Economic Theory*, 3:66–84, 1971.

Leonard J. Savage. *The Foundations of Statistics*. Dover, New York, 1972.