

ECON 9180: Economics of Uncertainty

Yongsheng Xu

Fall 2015

Email: yxu3@gsu.edu

Office: AYSPS 457

Telephone: (404) 413 0158

It should be noted that this course syllabus provides a general plan for the course and deviations may be necessary.

Important Dates:

08/28 Last Day to add/drop classes

09/07 Labor Day (University official holiday no classes)

10/13 Semester Midpoint; Last Day to Withdraw

11/23 11/29 Thanksgiving Break (University official holiday - no classes)

12/07 Last day of lectures

Important Notice: Please be advised that after the midpoint of the course, you will be given a WF if you are on the roll, but no longer taking the class.

Statement on Academic Honesty: Students are expected to abide by GSU's policy on academic honesty, which is published in the student handbook. A portion of this policy follows:

“As members of the academic community, students are expected to recognize and uphold standards of intellectual and academic integrity. The University assumes as a basic and minimum standard of conduct in academic matters that students be honest and that they submit for credit only products of their own efforts... The student is responsible for understanding the legitimate use of resources; the appropriate ways of acknowledging academic, scholarly, or creative indebtedness; and the consequences of violating this responsibility”

If you have questions about academic honesty, please see me.

Locations: Langdale Hall 323.

Time and Date: 12:00-13:15, Mondays and Wednesdays.

Office Hours: Walk in, or you may email me to arrange an appointment.

Others: (1) Students who wish to request accommodation for a disability may do so by registering with the Office of Disability Services. Students may only be accommodated upon issuance of the Office of Disability Services of a signed Accommodation Plan and are responsible for providing a copy of that plan to instructors of all classes in which accommodation is sought. (2) Your constructive assessment of this course plays an indispensable role in shaping education at GSU. Upon completion of the course, please take time to fill out the online course evaluation.

Overview: The course will divide roughly into two parts. Part I will develop some useful tools of economics of uncertainty including individual choice behavior under uncertainty, individual risk attitudes and measurements of risk aversion. Part II will be devoted to extensions and applications of the materials developed in Part I.

Evaluations: Your final grade for the course will be based on an exam (30%), your class presentations (35%), and a term paper (35%).

Texts: The following books are useful for the course.

(*) Peter P. Wakker, *Prospect Theory for Risk and Ambiguity*, Cambridge University Press, 2010.

(*) D. Kreps, *Notes on the Theory of Choice*, Underground Classics in Economics, Westview Press, 1988.

J. Quiggin, *Generalized Expected Utility Theory—The Rank-Dependent Model*, Kluwer Academic Publishers, 1993.

J.-J. Laffont, *The Economics of Uncertainty and Information*, MIT Press, 1989.

A. Mas-colell, M. Winston, and J. Green, *Microeconomic Theory*, Oxford University Press, 1995.

G. A. Jehle, and P. J. Reny, *Advanced Microeconomic Theory*, 2nd edition, Addison Wesley, Boston.

J. Hirshlerfer and J. Riley, *The Analytics of Uncertainty and Information*, Cambridge University Press, 1992.

Christian Gollier, *The Economics of Risk and Time*, The MIT Press, 2001.

Topics and Reading Assignments: Below are some tentative suggestions of the topics and the reading materials that we intend to cover in this course.

I. Foundations

I.1 Individual Choice Behavior under Uncertainty

- I.1.1 Expected Utility Theory
 - I.1.2 Nonexpected Utility Theories
 - I.1.3 Preference for Flexibility
 - I.2 Risk and the Measurement of Risk Aversion
 - I.2.1 Risk Attitudes, Measures of Risk Aversion and Risk
 - I.2.2 Stochastic Dominance
- II. Extensions and Applications
- II.1 Quality-of-life index
 - II.2 Risky Social Situations
 - II.3 Organizational Decision Making
 - II.4 Corruption
 - II.5 Ambiguity
 - II.6 Temptation and Self-Control

Readings:

I. Foundations

II.1 Expected Utility Theory: chs 1, 2 and 4 of Wakker

II.2 Nonexpected Utility Theory: chs 5-9 and chs 10-12 of Wakker

II.3 Preference for Flexibility: Kreps, *Econometrica* 1979, or Kreps 1988

II Riskiness and Risk Aversion: chs 3, 4 of Wakker

III. Quality-of-Life Index

Bleichrodt, H., 1995. QALYs and HYE: Under what conditions are they equivalent? *Journal of Health Economics* 14, 17-37.

Bleichrodt, H., 1997. Health utility indices and equity considerations. *Journal of Health Economics* 16, 65-91.

Bleichrodt, H., Diecidue, E., Quiggin, J., 2004. Equity Weights in the Allocation of Health Care: The Rank-Dependent QALY Model. *Journal of Health Economics* 23, 157-171.

Hougaard, J., Moreno-Ternero, J.D., and Østerdal, L.P., 2013. A new axiomatic approach to the evaluation of population health. *Journal of Health Economics* 32, 515-523.

Moreno-Ternero, J., Østerdal, L.P., 2014. Normative foundations for equity-sensitive population health evaluation functions. COHERE Discussion Paper 2014:01

Østerdal L.P., 2005. Axioms for health care resource allocation. *Journal of Health Economics* 24, 679-702.

Moreno-Ternero, J., Østerdal, L.P., 2014. The implications of equal value of life and prioritarianism for the evaluation of population health. Working Paper.

II2. Risky Social Situations

Harsanyi, John C. 1955. Cardinal Welfare, Individualistic Ethics, and Interpersonal Comparisons of Utility. *J.P.E.* 63 (August): 309-321.

Diamond, Peter A. 1967. Cardinal Welfare, Individualistic Ethics, and Interpersonal Comparisons of Utility: Comment. *J.P.E.* 75 (October): 765-66.

Pattanaik, P.K. 1968. "Risk, impersonality, and the social welfare function." *J. P. E.* 76 (Nov and Dec): 1152-1169.

Grant, Simon; Kajii, Atsushi; Polak, Ben; Safra, Zvi 2010, "Generalized Utilitarianism and Harsanyi's Impartial Observer Theorem." *Econometrica* Vol. 78.2010, 6, p. 1939-1971

M Fleurbaey. 2010. Assessing risky social situations *Journal of Political Economy* Vol. 118, No. 4 (August) , pp. 649-680

Hammond, Peter J., (2013) Extending the original position : revisiting the Patanaik Critique of Vickrey/Harsanyi Utilitarianism. Working Paper. Coventry, UK: University of Warwick, Department of Economics. (Warwick economics research papers series (TWERPS)).

II3. Organizational Decision Making

R. Sah and J. Stiglitz, The architecture of economic systems: hierarchies, and polyarchies, *A. E. R.*, 1986, 716-727.

R. Sah and J. Stiglitz, Committees, hierarchies, and polyarchies, *E. J.*, 1988, 451-470.

D. Scharfstein and J. Stein, Herd behavior and investment, *A. E. R.*, 1990, 465-479.

A. Banerjee, A simple model of herd behavior, *Q. J. E.*, 1992, 797-817.

J. Stein, Information Production and Capital Allocation: Decentralized versus Hierarchical Firms, *Journal of Finance*, 2002, 1891-1921.

M. Harris, A. Raviv, Organization Design, *Management Science*, vol 48(2), 2002, 852-865.

O. Hart, J. Moore, On the Design of Hierarchies: Coordination versus Specialization, *J.P.E.*, vol 113(4), 2005, 675-702.

Alonso, Ricardo, Dessein, Wouter and Matouschek, Niko (2008) When does coordination require centralization? *American Economic Review*, 98 (1). pp. 145-179.

M. Dewatripont, J. Tirole, Modes of Communication, *J.P.E.* 2005.

II4. Corruption

Banerjee, A., R. Hanna and S. Mullainathan, Corruption, MIT Working Paper 12-08, 2012.

Becker, Gary S. and George J. Stigler, Law Enforcement, Malfeasance, and Compensation of Enforcers, 3 *J. Legal Stud.* 1 (1974)

Di Tella, Rafael, and Federico Weinschelbaum, Choosing Agents and Monitoring Consumption: A Note on Wealth as a CorruptionControlling-Device. *Economic Journal* 118 (2008), no. 532.

Olken, Benjamin, Monitoring Corruption: Evidence from a Field Experiment in Indonesia, *Journal of Political Economy*, 115 (2007), 200-249.

Olken, Ben. Corruption Perceptions vs. Corruption Reality, *Journal of Public Economics*, 2009, 93 (7), pp. 950-964.

- Persson, Torsten, Guido Tabellini, and Francesco Trebbi, Electoral Rules and Corruption. *Journal of the European Economic Association* 1, 4 (2003), 958-989
- Shleifer, Andrei and Robert W. Vishny, Corruption, *Quarterly Journal of Economics*, 108 (1993), 599-617.
- Svensson Jakob, Eight Questions about Corruption. *Journal of Economic Perspectives*, 19 (2005), vol. 3, 19-42.
- Tirole, Jean, Hierarchies and Bureaucracies, *The Journal of Law, Economics, and Organization*, 1986.
- Treisman, Daniel, The Causes of Corruption. *Journal of Public Economics*, 76 (2000), 399-457

II5. Ambiguity

- ELLSBERG, D. (1961): Risk, Ambiguity and the Savage Axioms, *Quarterly Journal of Economics*, 75, 643-669.
- KLIBANOFF, P., M. MARINACCI, AND S. MUKERJI (2005): A Smooth Model of Decision Making Under Ambiguity, *Econometrica*, 73, 1849-1892.
- MACCHERONI, F., M. MARINACCI, AND A. RUSTICHINI (2006): Ambiguity Aversion, Robustness, and the Variational Representation of Preferences, *Econometrica*, 74, 1447-1498.
- EPSTEIN, L. G. (2010): A Paradox for the Smooth Ambiguity Model of Preference, *Econometrica*, 78, 2085-2099.
- KLIBANOFF, P., M. MARINACCI, AND S. MUKERJI (2012): "ON THE SMOOTH AMBIGUITY MODEL: A REPLY," *Econometrica*, Vol. 80, No. 3, 1303-1321

II6. Temptation and Self Control

- Kreps, D., A Representation Theorem for Preference for Flexibility, *Econometrica*, 47, May 1979, 565-576.
- Dekel, E., B. Lipman, and A. Rustichini, Representing Preferences with a Unique Subjective State Space, *Econometrica*, 69, July 2001, 891-934.
- Gul, F., and W. Pesendorfer, Temptation and Self-Control, *Econometrica*, 69, November 2001, 1403-1435.
- Amador, M., I. Werning, and G.-M. Angeletos, Commitment vs. Flexibility, *Econometrica*, 74, March 2006, 365-396.
- PER KRUSELL, BURHANETTIN KURUŞÇU, AND ANTHONY A. SMITH, JR., TEMPTATION AND TAXATION, *Econometrica*, Vol. 78, No. 6 (November, 2010), 2063-2084
- Lipman, B. and W. Pesendorfer, Temptation, 2011. Working Paper.