ECON 9030: Microeconomic Analysis II

Dr. Yongsheng Xu Spring 2018
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It should be noted that this course syllabus provides a general plan for the course and deviations may be necessary.

Locations: Langdale Hall 331

Time and Date: 3:00pm-4:15pm, Mondays and Wednesdays.

Office Hours: Mondays and Wednesdays: 9:30am-10:30am, 1:30pm-2:30pm; Other days: walk in

Important Dates:

01/8/2018–First day of class

01/15/2018–MLK holiday; no classes

02/19/2018–test 1

02/27/2018–last day to withdraw (www.gsu.edu/es/withdrawals.html for details)

03/12/-03/18/2018–Spring break; no classes

03/21/2018–test 2

04/23/2018–last day of class

04/30/2018(1:30pm-4pm)–final exam

Course Description: This is a continuation of Microeconomic Analysis I. We will cover three topics: *general equilibrium analysis, welfare, and information and incentives.*

Prerequisite: Econ 8030 and Econ 9010

Grades: Grades will be based on two in-class exams (25% each), homework assignments (15%), and a final exam (35%). If you miss an exam for a reason approved by the dean, the weight of the exam will be re-allocated to the other two exams.

Problem Sessions and Homework Assignments: The TA, Susan Tang, for this course will hold regular problem sessions and will grade your homework assignments. She will coordinate the meeting times with you directly.

Attendance Policy: Regular attendance is expected. If you must miss a class, please let the instructor know ahead of time (or asap). University policy states that all instructors must, on a date after the mid-point of the course (to be set by the Provost), give a WF to all those students who are on their rolls, but no longer taking the class; and report the last day the student attended or turned in an assignment.

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"

Please see the university's policy on Academic Honesty on the following website: http://www2.gsu.edu/ wwwfhb/sec409.html

Text: There are several excellent textbooks that are available:

[**required**] Geoffrey A. Jehle and Philip J. Reny, *Advanced Microeconomic Theory*, 3rd ed., New York: Addison Wesley, 2011. [JR]

[**optional**] A. Mas-Colell, M. Whinston and J. Green, *Microeconomic Theory*, Oxford University Press, 1995. [MWG]

[**optional**] H. Varian, *Microeconomic Analysis*, Third Edition, Norton, 1992. [V]

Topics and Reading Assignments:

- Equilibrium Analysis: [JR] ch 5
  - exchange economy
  - Walras: competitive equilibrium
  - Edgeworth: core
  - competitive equilibrium with production
  - efficiency and welfare theorems
  - equity as no-envy
  - uniqueness and stability of competitive equilibrium
  - time and uncertainty
- **Test #1: Feb 19**

- Social Choice and Welfare: [JR] ch 6
  - preference, utility and welfare
  - Bergson-Samuelson social welfare function
  - Arrow social welfare function
  - justice and equality
  - rights, liberty, and freedom
  - consequentialism and non-consequentialism
  - behavioral welfare economics
- **Test #2: March 21**
- Incentives and Information: [JR] chs 7, 8, 9
  - information asymmetry and competitive equilibrium
  - insurance and labor markets with asymmetric information
  - strategic form games of complete information and Nash equilibrium
  - strategic form games of incomplete information and Bayesian Nash equilibrium
  - extensive form games of complete information and subgame perfect Nash equilibrium
  - extensive form games of incomplete information and perfect Bayesian equilibrium
  - auctions
  - cooperative games
- **Final Exam: April 30, 1:30pm-4pm**

Student Learning Outcomes:

- Students should understand the relationship between a market's competitive structure and economic efficiency.
- Students should understand how behaviors of economic agents are modeled and how economic activities are organized in a competitive market system.
- Students should be able to derive excess demands and know how to work out Walrasian equilibrium.
- Students should know and be able to analyze the relationship between Walrasian equilibrium allocations and core allocations arising from non-market mechanisms.
- Students should understand welfare properties of Walrasian equilibrium.
- Students should have a good grasp of issues relating to normative policy analysis, and be familiar with and be able to use various social welfare functions for such analysis.
- Students should have a basic understanding of game theory and be able to apply the tools developed in game theory to various settings.
- Students should have a basic understanding of asymmetric information and its impact on economic efficiency.

Some further reading materials

1. **General Equilibrium:**

    (a) *Koopmans, T. (1957), *Three Essays on the State of Economic Science*, New York: McGraw-Hill.

    (b) *Arrow, K.J. (1972), General economic equilibrium: purpose, analytic techniques, collective choice, *Nobel Memorial Lecture*, December 12, 1972.

    (c) *Debreu, D. (1950), *Theory of Value*, New York: Wiley.

    (d) Arrow, K. and F. Hahn (1971), *General Competitive Analysis*, San Francisco: Holden-Day.

    (e) Lionel W. McKenzie (2005), *Classical General Equilibrium Theory*, Cambridge, MA.: The MIT Press.

    (f) Hildenbrand, W. and A. Kirman (1988), *Equilibrium Analysis*, New York: North-Holland.

    (g) Mas-Colell, A. (1985), *The Theory of General Equilibrium: A Differentiable Approach*, Cambridge: Cambridge University Press.

    (h) Samuelson, P. (1947), *Foundations of Economic Analysis*, Cambridge, Mass: Harvard University Press.

    (i) Danthine, J-P. and J. B. Donalson (2002), *Intermediate Financial Theory*, Upper Saddle River, NJ: Prentice Hall.

    (j) Stolper, W. and P. Samuelson (1941), Protection and real wages, *Review of Economic Studies*, 9, 58-73.

    (k) Weintraub, E Roy. (2011), "Retrospectives: Lionel W. McKenzie and the Proof of the Existence of a Competitive Equilibrium." Journal of Economic Perspectives, 25(2): 199-215.

2. **Welfare Economics and Social Choice:**

    (a) Pigou, A. (1946), *The Economics of Welfare*, 4th ed.,London: Macmillan.

    (b) *Arrow, K. (1951), *Social Choice and Individual Values*, 2nd ed., 1963, New York: Wiley.

    (c) *Sen, A. (1970), *Collective Choice and Social Welfare*, San Francisco: Holden Day.

    (d) Bergson, A. (1938), A reformulation of certain aspects of welfare economics, *Quarterly Journal of Economics*, 52, 310-334.

    (e) Bergson, A. (1954), On the concept of social welfare, *Quarterly Journal of Economics*, 68, 233-252.

    (f) Graaff, J. (1975), *Theoretical Welfare Economics*, London: CUP.

(g) Little, I. (1950), *A Critique of Welfare Economics*, London: OUP.

(h) Little I. (1952), Social choice and individual value, *Journal of Political Economy*, 60, 422-432.

(i) Suzumura, K. (1983), *Rational Choice, Collective Decisions and Social Welfare*, New York:CUP.

(j) Mueller, D. (1989), *Public Choice II*, Cambridge: CUP.

(k) Ng, Yew-Kwang (1983), *Welfare Economics*, London: MacMillan.

(l) Lipsey, R. and K. Lancaster (1956), The general theory of second best, *Review of Economic Studies*.

(m) Samuelson, P. (1954), The pure theory of public expenditure, *Review of Economics and Statistics*.

(n) Samuelson, P. (1954), Diagrammatic exposition of a theory of public expenditure, *Review of Economics and Statistics*.

(o) Suzumura, K. (2002), "Introduction", in *Handbook of Social Choice and Welfare*, edited by K. Arrow, A.K. Sen and K. Suzumura, North-Holland.

(p) *Sen, A.K. 1970, The impossibility of a Paretian liberal, *Journal of Political Economy*, 78, 152-157.

(q) Sen, Amartya K. 1999. The Possibility of Social Choice. *American Economic Review* 89: 349-378.

(r) Pattanaik, P.K. 2005. Little and Bergson on Arrows Concept of Social Welfare. *Social Choice and Welfare* 25: 369-379.

(s) *Pattanaik, P.K. and Y. Xu, 1990, "On Ranking Opportunity Sets in Terms of Freedom of Choice." *Recherches Economiques de Louvain* 56: 383-390.

(t) Rawls, J. 1951, Outline of a decision procedure for ethics, *Philosophical Review*, LXVII, 164-169.

(u) Rawls, J. 1971. *A Theory of Justice*, Cambridge, MA.: Harvard University Press.

(v) Parfit, D. 1984. *Reasons and Persons*, Oxford: Clarendon Press.

(w) Harsanyi, J.C. (1953), Cardinal utility in welfare economics, and in the theory of risk-taking, *Journal of Political Economy*, LXI, 434-435.

(x) Harsanyi, J.C. (1955), Cardinal welfare, individuastic ethics, and interpersonal comparisons of utility, *Journal of Political Economy*, LXIII, 309-321.

(y) Vickrey, W. (1960), Utility, strategy, and social decision rules, *Quarterly Journal of Economics*, LXXIV, 507-535.

3. **Incentives, and Information and Implementation:**

(a) J. -J Laffont (1989), *The economics of uncertainty and information*, Cambridge, Ma.: MIT Press.
(b) *Arrow, K.J. (1963), "Uncertainty and the welfare economics of medical care". *American Economic Review* 53(5): 941-973.
(c) *Akerlof, G. A. (1970). "The Market for 'Lemons': Quality Uncertainty and the Market Mechanism". *Quarterly Journal of Economics* 84 (3): 488?500.
(d) *Spence, M. (1973). "Job Market Signaling." *Quarterly Journal of Economics* 87(3): 355-374.
(e) *Rothschild, M. and J. Stiglitz (1976). "Equilibrium in Competitive Insurance Markets: An Essay on the Economics of Imperfect Information". *Quarterly Journal of Economics* 90(4): 629-649.
(f) *Hurwicz, L. (1972), *On Informationally Decentralized Systems*, in *Decision and Organization*, eds. by C. B. McGuire and R. Radner, Amsterdam: North-Holland.
(g) Hurwicz, L. (2007), But who will guard the guardians? Nobel Prize Lecture, December 2007.
(h) Maskin, E. (2007), Mechanism design: how to implement social goals? Nobel Lecture, December 2007.
(i) Myerson, R. (2007), Perspectives on mechanism design in economic theory. Nobel Lecture, December 2007.
(j) *von Neumann, J. and O. Morgenstern (1944), *Theory of Games and Economic Behavior*, Princeton: Princeton University Press.
(k) Nash, J. (1950), "The bargaining problems", *Econometrica*, 18(2), 155-162.
(l) Nash, John (1950) "Equilibrium points in n-person games", *Proceedings of the National Academy of Sciences* 36(1):48-49.
(m) Nash, John (1951) "Non-Cooperative Games", *The Annals of Mathematics* 54(2):286-295.
(n) *Luce, R.D. and H. Raiffa (1957), *Games and Decisions*, New York: Wiley.
(o) H.W. Kuhn and A.W. Tucker (1950/53), *Contributions to the Theory of Games* Vol. I and II, (eds.), Princeton University Press.
(p) H. Gintis, *Game Theory Evolving: A Problem-Centered Introduction to Modeling Strategic Interaction*, Princeton University Press, 2000.
(q) Laffont, J.-J and D Martimort (2002), *The Theory of Incentives*, Princeton University Press.
(r) Gibbons, R. (1992), *Game Theory for Applied Economists*, Princeton University Press.
(s) Shubik, M. (2011), The present and future of game theory, *Cowles Foundation Discussion Paper No. 1808*, Yale University.