# Preliminary --- Subject to Revision, 12/7/2013 ECONOMICS 200B – Part 1 MICROECONOMIC THEORY --- MARKETS AND WELFARE

The principal text for the course is Starr, *General Equilibrium Theory: An Introduction*, 2<sup>nd</sup> edition. Let Ross know of typos or errors. In addition we will use Mas-Colell, Whinston, and Green, *Microeconomic Theory*, Varian, *Microeconomic Analysis*, 3rd edition, Kreps, A Course in Microeconomic Theory.

Items shown with a bullet (•) are required reading for Economics 200B. Items shown with an asterisk (\*) on the syllabus were once designated by the UCSD Economics faculty as sufficient preparation for the qualifying examination in microeconomics for these topics. \*-designated material overlaps and extends •-designated material; suggestion: read both. Material denoted by a dagger (†) is intended to provide additional depth and breadth for the topic presented but is not intended to appear on a class or qualifying examination.

There will be weekly problem sets required.

## I. The Robinson Crusoe model; the Edgeworth Box in Consumption and Factor allocation

- •Starr, General Equilibrium Theory: An Introduction, Foreword, Chapters 1-5.
- $\bullet$  Starr, "Kenneth J. Arrow (born 1921)" biography by Starr in the New Palgrave,  $2^{nd}$  edition, online,

 $http://www.dictionaryofeconomics.com/article?id=pde2008\_K000067\&edition=current\&q=Starr\&topicid=\&result\_number=5.$ 

- Solow, Robert M., "A Contribution to the Theory of Economic Growth," Quarterly Journal of Economics, 1956, v.70, section I "Introduction," pp. 65, 66.
- "Ockham's razor." <u>Encyclopædia Britannica</u>. 2007. Encyclopædia Britannica Online. < <a href="http://search.eb.com/eb/article-9056716">http://search.eb.com/eb/article-9056716</a>>.
  - \*Mas-Colell, Whinston, and Green, chap. 15
  - \*Varian, chap. 17
- \*Jones, R., "The Structure of Simple General Equilibrium Models," *Journal of Political Economy*, 1963, pp. 557 72.
- †Nicholson, W., *Microeconomic Theory: Basic Principles and Extensions*, 2nd ed. chap 20, including appendices.
- †Cornwall, R. R., *Introduction to the Use of General Equilibrium Analysis*, pp. 20-24, "Economists' View of Robinson Crusoe;" pp. 78 -83, "Partial versus General Equilibrium Analysis."
  - †Arrow, K. J., and F. H. Hahn, General Competitive Analysis, chap 1.
- †Arrow, K.J., "General Economic Equilibrium: Purpose, Analytic Techniques, Collective Choice," *American Economic Review*, LXIV, v. 3, June 1974, pp. 253 272.
- †Weintraub, E. R., "On the Existence of Competitive Equilibrium: 1930 1954," *Journal of Economic Literature*, XXI, March 1983, pp 1 39.
- † Darrell Duffie and Hugo Sonnenschein "Arrow and General Equilibrium Theory" *Journal of Economic Literature*, Vol. 27, No. 2 (Jun., 1989), pp. 565-598.

† Weintraub, E. R., "Retrospectives: Lionel W. McKenzie and the Proof of the Existence of a Competitive Equilibrium," *Journal of Economic Perspectives*, v. 25, n. 2, pp. 199-215.

# II. The Arrow-Debreu Model of Competitive Equilibrium - Definition and Existence

This segment assumes the mathematical background in Starr, *General Equilibrium Theory: An Introduction* (second edition), chaps. 6, 7, 8 (not including sections 8.1 or 8.2), 9. Students should be familiar with the results, but understanding the proofs is not necessary.

#### A. An Economy with Bounded Production Technology

•Starr, *General Equilibrium Theory: An Introduction* (second edition), chaps. 10,11, 12, 13, 14.

## B. An Economy with Unbounded Production Technology

•Starr, *General Equilibrium Theory: An Introduction* (second edition), chaps. 15, 16, 17, 18.

### C. Additional Readings

- \*Mas-Colell, Whinston, and Green, Appendix M.I, chap. 17
- \*Varian, chap. 17, 18
- \*Kreps, sections 6.1 6.4
- † Douglas Gale, "Bargaining and Competition Part I: Characterization" *Econometrica*, Vol. 54, No. 4. (Jul., 1986), pp. 785-806.
- †Malinvaud, E. Lectures on Microeconomic Theory, (1st ed., 1972) chap. 2, sections 1 8, chap. 3, sections 1 4; or same sections in the Revised edition (1985).
- †Cornwall, R. R., Introduction to the Use of General Equilibrium Analysis, pp. 1-42.
- †Russell, R. and M. Wilkinson, *Microeconomic Theory: A Synthesis of Modern and Neoclassical Microeconomic Theory*, chapters 15 and 16.
  - †Arrow Hahn, chapter 2.
- †Geanakoplos, J., "Arrow-Debreu Model of General Equilibrium," in Eatwell, Milgate, and Newman, *The New Palgrave: General Equilibrium* (1989).
- †Uzawa, H., "Walras' Existence Theorem and Brouwer's Fixed-Point Theorem," *Economic Studies Ouarterly*, v. 8, 1962, pp. 59 -62.

# III. Efficiency of Competitive Equilibrium, Fundamental Theorems of Welfare Economics

- •Starr, General Equilibrium Theory: An Introduction (second edition), section 8.1, chapter 19.
  - \*Mas-Colell, Whinston, and Green, Appendix M.G, chap. 16
  - \*Varian, chap. 17, 18
- †Cornwall, R. R., Introduction to the Use of General Equilibrium Analysis, chapter 4.
  - †Arrow-Hahn, section 4-4

†Debreu, *Theory of Value*, chapter 6.

†Malinvaud, E. *Lectures on Microeconomic Theory*, (1st ed., 1972 or 2<sup>nd</sup> ed., 1985) chap. 4.

†Russell, R. and M. Wilkinson, *Microeconomic Theory: A Synthesis of Modern and Neoclassical Microeconomic Theory*, chapter 17.

†Koopmans, T. C., *Three Essays on the State of Economic Science*, essay I, part 2, "Competitive Equilibrium and Pareto Optimality."

#### **IV.** Time and Uncertainty -- futures markets

- •Starr, General Equilibrium Theory: An Introduction(second edition), chap. 20.
- •Debreu, G., *Theory of Value*, chapters 2, 7.
- \*Mas-Colell, Whinston, and Green, chap. 19
- \*Varian, chap. 19

†Arrow, K.J., "The Role of Securities in the Optimal Allocation of Risk-Bearing," *Review of Economic Studies*, v. 31, pp. 91 -96. Reprinted in Arrow, *Essays in the Theory of Risk-Bearing*.

†Radner, R., "Uncertainty and General Equilibrium," in Eatwell, Milgate, and Newman, *The New Palgrave: General Equilibrium* (1989).

†Geanakoplos, J., "An Introduction to General Equilibrium with Incomplete Asset Markets," *Journal of Mathematical Economics*, v.19, 1990, pp. 1 -38.

† Hahn, F. H., "Equilibrium with Transaction Costs," Econometrica, v. 39, 1971, pp. 417 - 439.

### V. Core of a Market Economy

- •Starr, *General Equilibrium Theory: An Introduction* (second edition), chaps. 21, 22 (omit section 22.4).
  - \*Mas-Colell, Whinston, and Green, chap. 18
  - \*Varian, section 21.1
  - \*Kreps, section 8.4
- †Cornwall, R. R., Introduction to the Use of General Equilibrium Analysis, chap.5
- †Debreu, G., and H. Scarf, "A Limit Theorem on the Core of an Economy," *International Economic Review*, v.4, (1963), pp. 235-246.
- †Anderson, R.M., "An elementary core equivalence theorem," *Econometrica*, v. 46, no. 6, (Nov. 1978), pp. 1483 1488.
- †Ichiishi, T., *Game Theory for Economic Analysis*, sections 5.5, 5.6, and pp. 24, 25.
  - † Starr, sections 8.2, 22.4.
  - †Arrow-Hahn, chapter 8.
- † Hildenbrand, W., "Cores," in Eatwell, Milgate, and Newman, *The New Palgrave: General Equilibrium* (1989).
- † Foley, D. K., "A Statistical Equilibrium Theory of Markets," *Journal of Economic Theory*, v. 62, 1994, pp. 321 345.

## <u>Appendix: \* material (on economic equilibrium and welfare economics) not included in this course</u>

### Partial Equilibrium, Comparative Statics

- \*Mas-Colell, Whinston, and Green, section 10.C. Appendix M.E.
- \*Varian, sections 13.1 13.5, 13.8, 13.11, 13.12
- \*Kreps, sections 8.1 8.3

## A quasi-linear model: Consumer Surplus and Compensation Tests

- \*Mas-Colell, Whinston, and Green, chap. 10. Appendix M.E.
- \*Varian, chaps. 10, 13
- \*Kreps, sections 8.1 8.3
- \*Starrett, Foundations of Public Economics, chap. 14

#### **Externalities**

- \*Varian Ch. 24
- \*Mas-Colell, Whinston & Green Ch. 11

#### **Public Goods**

- \* Feldman, Welfare Economics and Social Choice Theory, Ch. 6
- \*Varian Ch. 23
- \*Mas-Colell, Whinston & Green Ch. 11

#### **Social Welfare Functions and Social Choice Theory**

\*Mas-Colell, Whinston & Green 22A-C