

## **ECONOMICS 200B --- MICROECONOMIC THEORY MARKETS AND WELFARE**

The principal text for (most of) the first five weeks of the course is Starr, *General Equilibrium Theory: An Introduction*. Corrigenda for the first edition is available on the class webpage. Draft chapters for the second edition are available on the class webpage. Use the draft second edition chapters and 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*, Arrow and Scitovsky, *AEA Readings on Welfare Economics*, Laffont, *Fundamentals of Public Economics*, Feldman, *Welfare Economics and Social Choice Theory* and additional readings.

Lectures on sections II – V, VII, will parallel the treatment in Starr's *General Equilibrium Theory: An Introduction*. Please read the designated portion of Starr on each topic before the class meeting on it.

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. There will be a take-home midterm and take-home final exam.

### **I. Partial Equilibrium, Comparative Statics, 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
- Feldman Ch. 7
- \*Starrett, *Foundations of Public Economics*, chap. 14

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

- Starr, *General Equilibrium Theory: An Introduction* (draft second edition) chap. 1
- Starr, "Kenneth J. Arrow" draft biography for the New Palgrave, 2<sup>nd</sup> edition.
- \*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.

### III. Competitive Equilibrium - Definition and Existence

•Starr, *General Equilibrium Theory: An Introduction* (draft second edition), 2.7, 2.9, chaps 3 - 11.

• Starr, draft chapter of the second edition "U-Shaped Cost Curves and Concentrated Preferences"

\*Mas-Colell, Whinston, and Green, Appendix M.I, chap. 17

\*Varian, chap. 17, 18

\*Kreps, sections 6.1 - 6.4

• Arrow-Hahn, chap. 7; appendix B.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 Quarterly*, v. 8, 1962, pp. 59 -62.

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

•Starr, *General Equilibrium Theory: An Introduction*(draft second edition), 2.8, chap. 12.

\*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."

## V. Time and Uncertainty -- futures markets

•Starr, *General Equilibrium Theory: An Introduction*(draft second edition), chap. 15.

•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).

†Magill, M., and W. Shafer, "Incomplete Markets," in Hildenbrand and Sonnenschein, eds, *Handbook of Mathematical Economics*, v. IV, pp. 1523 - 1614.

†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.

† Starr, R.M., "Why is there money? Endogenous derivation of 'money' as the most liquid asset: a class of examples" *Economic Theory*, v. 21, 455-474, (2003).

## VI. Why do we do general equilibrium theory and welfare economics?

### A. The marginal cost pricing controversy

† Harold Hotelling "The General Welfare in Relation to Problems of Taxation and of Railway and Utility Rates," *Econometrica*, Vol. 6, No. 3 (Jul., 1938), pp. 242-269

† Harold Hotelling, "The Relation of Prices to Marginal Costs in an Optimum System," *Econometrica*, Vol. 7, No. 2 (Apr., 1939), pp. 151-155

†Harold Hotelling, "A Final Note," *Econometrica*, Vol. 7, No. 2 (Apr., 1939), pp. 158-160

†R. Coase, "The marginal cost controversy," *Economica*, v. 13, (1946), pp. 169 – 189.

†W. A. Lewis, "The two-part tariff" and "The two-part tariff: A reply," *Econometrica*, v. 7, (1941), pp. 249 - 270 and pp. 399 – 408.

†N. Ruggles, "Recent developments in the theory of marginal cost pricing," *Review of Economic Studies*, v. 17 (1949 – 1950), pp. 107 - 126

### B. Method

† Hahn, F.H., *On the Notion of Equilibrium in Economics*.

† Kaldor, N., "The Irrelevance of Equilibrium Economics," *Economic Journal*, (1972).

• McCloskey, D., "The Futility of Blackboard Economics," chap 3 in McCloskey, *The Vices of Economists---The Virtues of the Bourgeoisie*, Amsterdam University Press, 1996.

• Gibbard, A. and H. Varian, "Economic Models," *Journal of Philosophy*, v.75, 1978, pp. 664-677.



- † Debreu, G., "Theoretic Models: Mathematical Form and Economic Content," *Econometrica*, v.54, no. 6 (Nov. 1986), pp. 1259-1270.
- † Koopmans, T.C., *Three Essays on the State of Economic Science*; essays II and III, "The Construction of Economic Knowledge" and "The Interaction of Tools and Problems in Economics."
- † McKenzie, L.W., "General Equilibrium," *The New Palgrave*.
- † Clower, R. W., "Axiomatics in Economics," *Southern Economic Journal*, v. 62, 1995, pp. 307-319.

## VII. Core of a Market Economy

- Starr, *General Equilibrium Theory: An Introduction* (draft second edition), chaps. 13, 14, section 2.9.
- Starr, draft chapter for the second edition, "A Large Economy without Replication"
- \*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.
- Ichiishi, T., *Game Theory for Economic Analysis*, sections 5.5, 5.6, and pp. 24, 25.
- † Anderson, R.M., "An elementary core equivalence theorem," *Econometrica*, v. 46, no. 6, (Nov. 1978), pp. 1483 - 1488.
- † 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.

## VIII. Social Welfare Functions and Social Choice Theory

- Varian, ch. 17
- Feldman Ch. 9, 10
- Sen, Amartya K., *Collective Choice and Social Welfare*, chaps. 3, 3\*
- Arrow & Scitovsky, *AEA Readings on Welfare Economics*, Arrow, "A Difficulty in the Concept of Social Welfare"
- Mas-Colell, Whinston & Green Ch. 21
- \*Mas-Colell, Whinston & Green 22A-C
- † Chichilnisky, G. and G. Heal, "Necessary and Sufficient Conditions for a Resolution of the Social Choice Paradox," *Journal of Economic Theory*, v. 31, n. 1, October 1983, pp. 68 - 87.

## IX. Externalities

- \*Varian Ch. 24
- Laffont Ch. 1, secs. 1.1-1.5
- \*Mas-Colell, Whinston & Green Ch. 11
- † Ruff, L., "The Economic Common Sense of Pollution," *The Public Interest*, No. 19, Spring 1970, pp. 69-85.



- † Coase, R.N., "The Problem of Social Cost," *Journal of Law and Economics*, 1960, 1-44.
- † Cornwall, R. R., *Introduction to the Use of General Equilibrium Analysis*, chap. 6
- † Hardin, G., "The Tragedy of the Commons," *Science*, 162 (1968), pp. 1243-1248.
- Montgomery, David (1972), "Markets in Licenses and Efficient Pollution Control Programs," *Journal of Economic Theory*, 5, 395-418.

#### **X. Public Goods**

- \*Feldman Ch. 6
- \*Varian Ch. 23
- Laffont Ch. 2, secs. 2.1-2.4; Ch. 3, secs. 3.1-3.3
- \*Mas-Colell, Whinston & Green Ch. 11
- † R. Russell and M. Wilkinson, *Microeconomics: A Synthesis of Modern and Neoclassical Theory*, chapter 18.
- † Starrett, D.A., *Foundations of Public Economics*, section 16.3

#### **XI. Second-Best Allocation Mechanisms: Equity, Efficiency, and Government Revenue**

- Varian Ch. 22
- \*Mas-Colell, Whinston & Green Ch. 22A-C
- Auerbach, A., *Handbook of Public Economics*, v.1, ch. 2, "The Theory of Excess Burden and Optimal Taxation"

#### **XII. The Space of Economies and Equilibria, Computation of Equilibria**

- Mas-Colell, Whinston & Green, ch. 17.D, 17.E
- † D. J. Brown and R. Matzkin, "Testable Restrictions on the Equilibrium Manifold," *Econometrica*, v. 64, 1996, pp. 1249-1262.
- † Peter Dixon and B. R. Parmenter, "Computable General Equilibrium Modelling for Policy Analysis and Forecasting" chapter 1 in *Handbook of Computational Economics*, v. I, Amman, Kendrick and Rust, editors.