

SYLLABUS

Readings:

The reference book for this course is

N. L. Stokey and R. E. Lucas with E. C. Prescott, *Recursive Methods in Economic Dynamics*. Harvard University Press, 1989.

This is an important reference and is probably worth buying now for future use. Do not worry if it seems very difficult for you at this stage.

In addition there is an optional reference that illustrates some of the many uses of the tools studied in this course.

T. F. Cooley, editor, *Frontiers of Business Cycle Research*. Princeton University Press, 1995.

Copies of some of the other readings will be on sale at Copies on Campus in the basement of the Social Sciences Tower (students will be told when these are available).

Office Hours:

Wednesday 9:00 am - 12:00 noon (There is a sign-up sheet on my door.)

Walter Heller Building 1168, 625-1589 (Please do not call me at home; send me an e-mail message at tkehoe@atlas.socsci.umn.edu.)

Assignments:

There will be three problem sets, an optional midterm, and a final. (The midterm will be given during a review session.) In addition to analytical work, each problem set will require you to write a computer program in Matlab, Fortran, Gauss, or some such language. All assignments must be completed in order to receive a final grade for the course.

Teaching Assistant:

The teaching assistant is Oleg Tsyvinski, whose office hours are Wednesday, 2:00 - 4:00 pm, Walter Heller Building 1022, 625-3584, oleg@atlas.socsci.umn.edu.

Grading:

Each problem set mark will be counted once and the final will be counted twice, providing a total of five marks. The lowest of these marks will be dropped and the remaining marks averaged. Notice that this means that, if the lowest mark is that of the final, its weight will be halved, but it will not be completely dropped. The midterm will be counted only if doing so improves the overall grade.

Late Policy:

Any late assignment will be penalized 10 (out of 100) points for each class period it is late, up to a maximum of 40 points.

Cooperation on Assignments:

Students are permitted (and encouraged) to discuss the answers to problem sets together. Copying from another student's answers is not allowed.

CLA Guidelines for Defining Scholastic Dishonesty:

"Scholastic dishonesty is any act that violates the rights of another student with respect to academic work or that involves misrepresentation of a student's own work. Scholastic dishonesty includes (but is not limited to) cheating on assignments or examinations, plagiarizing (misrepresenting as one's own anything done by another), submitting the same or substantially similar papers for more than one course without consent of all instructors concerned, depriving another of necessary course materials, sabotaging another's work." (p. 10, *CLA Classroom, Grading & Examination Procedures. 1999-2000.*)

List of Topics:

1. Introduction to Dynamic General Equilibrium

P. A. Diamond, "National Debt in a Neo-Classical Growth Model," *American Economic Review*, 55 (1965), 1126-1150.

T. J. Kehoe, "Intertemporal General Equilibrium Models," in F. Hahn, editor, *The Economics of Missing Markets, Information, and Games*. Claredon Press, 1989, 363-393.

Stokey-Lucas-Prescott, Chapters 2, 3, 4.

2. Overlapping Generations Economies

T. J. Kehoe and D. K. Levine, "Comparative Statics and Perfect Foresight in Infinite Horizon Economies," *Econometrica*, 53 (1985), 433-453.

D. Gale, "Pure Exchange Equilibrium of Dynamic Economic Models," *Journal of Economic Theory*, 6 (1973), 12-36.

T. J. Kehoe and D. K. Levine, "The Economics of Indeterminacy in Overlapping Generations Models," *Journal of Public Economics*, 42 (1990), 219-243.

P. A. Samuelson, "An Exact Consumption Loan Model of Interest, With or Without the Social Contrivance of Money," *Journal of Political Economy*, 66 (1958), 467-482.

N. Wallace, "The Overlapping Generations Model of Fiat Money," in J. H. Kareken and N. Wallace, editors, *Models of Monetary Economies*, Federal Reserve Bank of Minneapolis, 1980.

3. The Neoclassical Growth Model

Cooley, Chapters 1, 2.

T. J. Kehoe, "Calibrating the Growth Model."

F. E. Kydland and E. C. Prescott, "Time to Build and Aggregate Fluctuations," *Econometrica*, 50 (1982), 1345-1370.

R. E. Lucas, "On the Mechanics of Economic Development," *Journal of Monetary Economics*, 22 (1988), 3-42.

R. M. Solow, *Growth Theory: An Exposition*. Oxford: Clarendon Press, 1970.

4. Dynamic Programming

Stokey, Lucas, Prescott, Chapters 5, 6, 8, 9.

5. Incomplete Markets

J. Geanakoplos, "An Introduction to General Equilibrium with Incomplete Markets," *Journal of Mathematical Economics*, 19 (1990), 1-38.

O. Hart, "On the Optimality of Equilibrium when Market Structure is Incomplete," *Journal of Economic Theory*, 11 (1975), 418-443.

T. J. Kehoe and D.K. Levine, "Debt-Constrained Asset Markets," *Review of Economic Studies*, 60 (1993), 865-888.

T. J. Kehoe and D.K. Levine, "Liquidity Constrained Markets versus Debt Constrained Markets."

R. Radner, "Existence of Equilibrium of Plans, Prices, and Price Expectations in a Sequence of Markets," *Econometrica*, 40 (1972), 289-303.