Economics 200E: Introduction to Dynamic Macroeconomic Analysis

Course Description: This course is designed as an introduction to dynamic macroeconomic analysis, particularly recursive methods. As such, the course will consist of a fairly thorough presentation of the ideas and techniques contained in the articles listed below. There will be two exams, a midterm and final, each contributing 35% and 45%, respectively, to the course grade. The remaining 20% will come from homework assignments. Shaofeng Xu will be the TA for the course and will hold regular discussion sections; time and location for these to be determined. My official office hours are Monday and Wednesday, 11-12; however, feel free to stop by anytime. You can also reach me via email: kdsalyer@ucdavis.edu.

Course material will be drawn from several sources with most available on the class web site (see below). Suggested texts are L. Ljungqvist and T. Sargent, Recursive Macroeconomic Theory, Lucas & Stokey (with Prescott), Recursive Methods in Economic Dynamics. For a more intuitive discussion of some of the topics, David Romer’s text, Advanced Macroeconomics might be useful. Roger Farmer’s text, The Macroeconomics of Self-Fulfilling Prophecies may prove useful when we discuss sunspot models.

Articles denoted with (*) are available from the class web site.

Overview: Some classic articles by Robert Lucas:

1. (*) Methods and Problems in Business Cycle Theory
2. (*) Understanding Business Cycles
3. (*) Models of Business Cycles

I. INTRODUCTION TO DYNAMIC PROGRAMMING

4. Lucas, Stokey, and Prescott, Recursive Methods in Economic Dynamics, Chapter 2
5. (*) Sargent, Dynamic Macroeconomic Theory, Chapter 1.
6. (*) Handout on dynamic programming.
7. (*) Salyer, Handout on Markov Processes.
8. (*) Salyer, Savings under Uncertainty.

II. APPLICATIONS OF DYNAMIC PROGRAMMING -- EXCHANGE SETTINGS

A. The consumption based capital asset pricing model

9. (*) Lucas, R.E., Jr., Asset Prices in an Exchange Economy
   Stock prices and volatility
10. (*) LeRoy and LaCivita, Risk Aversion and the Dispersion of Asset Prices
11. (*) Salyer, Risk Aversion and Stock Price Volatility when Dividends are Difference Stationary
   The equity premium puzzle -- testing models through calibration
12. (*) Cochrane, Where is the Market Going?
13. (*) Summers, The Scientific Illusion in Empirical Macroeconomics
14. (*) Mehra and Prescott, The Equity Premium: A Puzzle
15. (*) Rietz, The Equity Premium: A Solution
16. (*) Bansal Long Run Risks and Financial Markets

B. Consumption and saving theory -- the permanent income hypothesis

17. Sargent, Dynamic Macroeconomic Theory, Chapter 3.
18. (*) Hall, Stochastic Implications of the Life Cycle-Permanent Income Hypothesis.

MIDTERM WILL COVER TO THIS POINT
III. REAL BUSINESS CYCLE THEORY

A. The data
   19. (*) Cooley, Frontiers of Business Cycle Research, Chapter 1.
   20. (*) O. Jorda, Notes on Detrending.
   21. (*) Kydland & Prescott, Real Facts and a Monetary Myth
   22. (*) J. Stock & M. Watson, Business Cycle Fluctuations

B. A Brief Tour of Linear Stochastic Difference Equations
   23. (*) Enders, Chapter 1.
   24. (*) Collard, Notes.

C. Real Business Cycle Models, Sunspots and Asset Pricing in Production Economies
   25. (*) Cooley, Calibrated Models
   27. (*) Hansen and Wright, The Labor Market in Real Business Cycle Theory.
   28. (*) Salyer, Calibration and the Volatility of Labor
   30. (*) Stadler, Real Business Cycles.
   31. (*) Gomme and Rupert, Theory, Measurement and Calibration of Macroeconomic Models
   32. (*) Frances and Ramey, Is the Technology-Driven Real Business Cycle Hypothesis Dead?
   33. (*) Cogley & Nason, Output Dynamics in Real Business Cycle Models
   34. (*) Jermann, Asset Pricing in Production Economies
   35. (*) Greenwood, Hercovitz, and Krusell, The Role of Investment-Specific Technological
       Change in the Business Cycle
   36. (*) Andolfatto, Business Cycles and Labor Market Search
   37. (*) Benhabib & Farmer, Indeterminacy and Sunspots in Macroeconomics

E. Extensions to monetary economies
   38. (*) Tobin, Money and Economic Growth.
   39. (*) Sidrauski, Rational Choice and Patterns of Growth in a Monetary Economy.
   40. (*) Stockman, Anticipated Inflation and the Capital Stock in a Cash-in-Advance Economy.
   41. (*) Cooley and Hansen, The Inflation Tax in a Real Business Cycle Model.
   42. (*) Salyer, Interpreting a Stochastic Monetary Growth Model as a Modified Social Planner
       Problem