

Fall 2016
Ananth Seshadri

Economics 712
Advanced Macroeconomics

Objective: The second half of Economics 712 aims to continue to build your knowledge of quantitative and theoretical macroeconomics. The course will emphasize the tools of dynamic programming and various applications of it. The applications will include economic growth, business cycles, incomplete markets, technological change, and human capital investment.

Office Hours: 1-3 on Thursday.

TA: The TAs for the course are Eirik Brandsaas and Fu Tan.

Grading: Grades will be based on the final exam and a few (4) homework assignments. These assignments will together constitute 15% of the grade, with the rest being determined by the Final to be held on Dec. 14. The fourth assignment will be a computational assignment.

Homework Assignments: Periodically, problems will be assigned. The TA will go over the solutions to some of the assigned problems during the discussion section.

Reading List (Topics)

1. Dynamic Programming (8-10 lectures)

We will essentially go through discrete time dynamic programming. We shall hopefully cover both the deterministic and stochastic cases. Stokey and Lucas (Recursive Methods in Economic Dynamics) contains all the essential results, but it is a hard read for a beginner. So, we shall rely on lecture notes prepared by Dirk Krueger. These notes are self-contained.

2. Real Business Cycles (1-2 lectures)

Cooley, Thomas F. and Edward C. Prescott, 1995, "Economic Growth and Business Cycles," 1-38 in Cooley, Thomas F. (ed.) *Frontiers of Business Cycle Research*, Princeton: Princeton University Press.

Greenwood, Jeremy, Hercowitz and Gregory W. Huffman, "Investment, Capacity Utilization, and the Real Business Cycle," *American Economic Review* 78 (June 1988): 402-417.

Lucas, Robert E., Jr. 1977, "Understanding Business Cycles," reprinted as pp215-239 of Lucas, Robert E., Jr., *Studies in Business Cycle Theory*, 1982, Cambridge: MIT Press.

Prescott, Edward C., 1986, "Theory Ahead of Business Cycle Measurement," 11-44 in *Real Business Cycles, Real Exchange Rates and Actual Policies*, Carnegie Rochester Conference Series on Public Policy No. 25, K. Brunner and A. Meltzer (eds.).

2A. More on Calibration

(This topic will not be covered in class, but you may want to glance through these papers)

Hansen, Lars Peter and James J. Heckman, "The Empirical Foundations of Calibration," *Journal of Economic Perspectives* Winter, 87-105.

Kydland, Finn E. and Edward C. Prescott, 1996, "The Computational Experiment: An Econometric Tool," *Journal of Economic Perspectives* Winter, 69-85.

3. The Labor Market (1 lecture)

Hansen, Gary, 1985, "Indivisible Labor and the Business Cycle," *Journal of Monetary Economics*, 309-328.

Hansen, Gary and Randall Wright, 1992, "The Labor Market in Real Business Cycle Theory," *Federal Reserve Bank of Minneapolis Quarterly Review* Spring, 2-12.

Hopenhayn, Hugo and Rogerson, Richard. "Job Turnover and Policy Evaluation: A General Equilibrium Analysis," *Journal of Political Economy*; v101 n5 October 1993, pp. 915-38.

4. Incomplete Markets (2 lectures)

Aiyagari, Rao S. "Uninsured Idiosyncratic Risk and Aggregate Savings," *Quarterly Journal of Economics*, (1994): 659-684.

Atkeson, Andrew and Robert E. Lucas, Jr., "On Efficient Distribution with Private Information", *Review of Economic Studies*, vol. 59 (July) 1993, pp.427-453.

5. Human Capital Investment (1 Lecture)

Aiyagari, S Rao, Jeremy Greenwood and Ananth Seshadri, "Efficient Investment in Children," *Journal of Economic Theory*, 102 (2), 290-321, February 2002.

Lucas, R. (1988). "On the Mechanics of Economic Development," *Journal of Monetary Economics*, 22(1):3-42.

6. Inequality, Stratification and Growth (1 Lecture)

Bénabou, Roland (1996) "Heterogeneity, Stratification, and Growth: Macroeconomic Implications of Community Structure and School Finance," *The American Economic Review*, Vol. 86, No. 3. (Jun., 1996), pp. 584-609.

Durlauf, S. (1992) "A Theory of Persistent Inequality," *Journal of Economic Growth* 1(1), 75–94.

Fernández, R. and R. Rogerson (1996), "Income Distribution, Communities and the Quality of Public Education" *The Quarterly Journal of Economics*, 135-164.