Economics 475: Macroeconomics I

Fall 2014

Instructor: Professor George Alessandria
Lecture: MW 9:30 – 10:45 (Harkness 208)
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Overview: This is the first course in the macroeconomics sequence designed for Ph.D. students. It covers the basics of long-run macroeconomic analysis.

We will cover (time permitting) the following topics in the course:

1. Neoclassical Growth Model
2. Dynamic Programming
   - Sequential Methods
   - Finite Horizon Dynamic Programming
   - Infinite Horizon Dynamic Programming
   - Application: Search Theory
3. Optimal Growth
   - Basic Optimal Growth Model
   - Generalized Model
   - Recursive Competitive Equilibria
   - Equilibria in Economies with Distortions
   - Endogenous Technical Change
4. Overlapping Generations
   - Basic OLG Model
   - Monetary Equilibria
   - Dynamics
   - Fiscal Policy
5. Job Search – DMP Model

Grading: There will be two exams (in class). The first will be Monday, October 20, and the second will be Wednesday December 10th. Homework will be assigned periodically. Each exam will be worth 40% of your grade. The remaining 20% will be based on homework. I encourage students to work in small groups of two or three people. Each individual must hand in their own homework for credit noting their study partners.

Texts

I have put together a series of comprehensive lecture notes which will be made available on my website as the course progresses.

https://sites.google.com/site/georgealessandria2/home/teaching

If you want to look at a textbook, some useful references are

[LS] Ljunquist and Sargent. *Recursive Macroeconomic Theory,*
[S] Sargent, T. *Dynamic Macroeconomic Theory*. Cambridge, MA, Harvard Press, 1987.
[SLP] Stokey, Nancy, Robert Lucas with Edward Prescott. *Recursive Methods in Economic Dynamics*. Cambridge, MA, Harvard Press, 1989.

Some additional references:

Cooley, Thomas F. *Frontiers of Real Business Cycle Research*. Princeton, NJ, Princeton Press, 1995.
Dixit, A.K. *Optimization in Economic Theory*. New York, Oxford Press 1990.
Kreps, David. Appendix on Dynamic Programming in *A Course in Microeconomic Theory*. Princeton, NJ, Princeton Press, 1990.
McCandless, George and Neil Wallace. *Introduction to Dynamic Macroeconomic Theory: An Overlapping Generations Approach.* Cambridge, MA, Harvard Press, 1991.
Pissarides, Christopher. *Equilibrium Unemployment Theory.* Cambridge, MA, Blackwell, 1990.
Sargent, T. and R. Manuelli. *Solution Manual to Dynamic Macroeconomic Theory*. Cambridge, MA, Harvard Press, 1995.

Growth:

*Ramsey, Frank P. 1928. A mathematical theory of saving. *Economic Journal* 38:543-559.
*Solow, Robert M. 1956. A contribution to the theory of economic growth. *Quarterly Journal of Economics* 70:65-94.
*Swan, Trevor W. 1956. Economic growth and capital accumulation. *Economic Record* 32:334-361.
*Cass, David. 1965. Optimum growth in an aggregate model of capital accumulation. *Review of Economic Studies* 32:233-240.
Koopmans, Tjalling C. 1965. On the concept of optimal growth. *The Econometric Approach to Development Planning.* Chicago: Rand McNally.
Brock, William, and Leonard Mirman (1972): "Optimal Economic Growth and Uncertainty: The Discounted Case," *Journal of Economic Theory*, 4(3), 479–513.

Overlapping Generations:

Diamond, Peter. 1965. National Debt in a Neoclassical Growth Model. *American Economic Review* 55, 5 (Dec), 1126-1150.
Samuleson, Paul A. 1958. "An exact Consumption-Loan Model of Interest without the Social Contrivance for Money." *Journal of Political Economy* 66, 6 (Dec.), 467-482.
Sargent Chapter 7.
McCandless and Wallace.

Job Search:

Sargent Chapter 2.
Davis and Haltiwanger.
Mortensen and Pissarides. 1994. Job Creation and Job Destruction in the Theory of Unemployment. *The Review of Economic Studies* 61, 3 (July), 397-415.
  Pissarides