

Course Outline for Autumn Term of ‘Macroeconomics’ (EC5120) – 2001-02

Course Code and Title

Macroeconomics EC5120

Course Leader

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Aims

Introduction to modern intertemporal macroeconomics focusing on the topics of growth and business cycles. We will also develop and apply tools for dynamic economic analysis that are useful in all fields of economics. This course together with its continuation in the Spring gives students a solid core in modern macroeconomics.

Learning Outcomes

Upon completion of this course students should:

- understand the main insights into the economic growth process that economists have gleaned over the past half century
- understand the fundamentals of the “real” approach to business cycle analysis
- be able to solve the sort of problems that will be assigned in class
- be able to identify applications and limitations of the models learned
- be able to suggest ways in which the models learned might be extended or improved

Course Delivery

There will be one two-hour lecture per week. The lectures are self-contained and include everything students are responsible for. I will post these lectures on my personal web page <http://www2.rhbnc.ac.uk/~uhte014/>. I will be available always during office hours. Students can knock on my door at other times and I will almost always meet with people if I am there.

Students must do the five problems sets that constitute the core of the course. Every week there will be a seminar mainly to discuss this homework. Seminars will also cover some mathematical material that students did not completely master in the pre-sessional maths course.

The treatment will follow closely that of Romer, David 1996, *Advanced Macroeconomics*, New York: McGraw-Hill. Students should probably read the relevant chapters but focus more energy on the lectures and problem sets. Additional readings listed in this syllabus are entirely optional and are intended to help students who wish to write their theses on one of the subjects covered in this course.

In addition, some students might wish to consult the books Blanchard, Olivier J., and Fischer, Stanley, 1989. *Lectures on Macroeconomics*, Cambridge: MIT Press, and Barro, Robert J. and Sala-I-Martin, Xavier 1995. *Economic Growth*. New York, McGraw-Hill.

Assessment

- 3-hour unseen examination in the summer term on this term together with the Spring-term course which contributes 100% to the final mark and is taken during the Summer term. The exam will mainly test your knowledge to solve problems like the ones assigned in class. Some questions will test your knowledge of the limits and applicability of the models. I will post previous exams on my web site but note that the rubric for the exam has changed. This year the exam will have two mandatory questions plus a choice of answering any two questions out of four.
- All problem sets are required and a student who does not make a serious attempt on all of them can be prevented from taking the final exam. Also, the fifth problem set will take on the character of a take-home exam. Poor performance on this exam can result in a student being prevented from taking the final exam.

Reading

The above books are for sale in the College bookstore. They are also on short loan in the library. All other readings are available either on JSTOR, short loan in the library or (in the case of recent journal article) on the library shelves. Locations are marked below. JSTOR is an electronic database containing the full text of back runs (not including very recent years) of many journals. It is available over the internet. For more information, please see *Information Services' Information Sheet 51* (available at the library).

Weekly Timetable

Each section has associated homework which students complete before the seminar at which the homework is discussed. The goal for each section is for students to gain full mastery of the associated homework. Later, when revising for the final exam, students should work out the problems in previous exams.

Weeks 1 and 2 - Solow Growth

At the end of this unit you should understand the foundations of modern growth accounting in a model with an exogenous rate of saving. You should be able to do basic manipulations of the Solow models such as analyzing the impact of changes in savings rates and population growth on output.

Readings

Romer, chapter 1.

Barro and Sala-I-Martin, chapter 1.

De Long, J. Bradford. 1988. "Productivity Growth, Convergence, and Welfare:
American Economic Review 78 (December): 1138-1154. JSTOR

Mankiw, N. Gregory, Romer, David, and Weil, David N. 1992. "A Contribution
to the Empirics of Economic Growth," *Quarterly Journal of Economics* 107
(May): 407-437. JSTOR.

Young, Alwyn. 1995. "The Tyranny of Numbers: Confronting the Statistical Reality of
the East Asian Growth Experience." *Quarterly Journal of Economics* 110 (August):
641-680. JSTOR.

Homework – Romer 1.1, 1.4, and 1.7 (Cobb-Douglas Cases)

Weeks 3 and 4 - Optimal Growth

At the end of this unit you should be able to solve the Ramsey Model that engogenizes savings and formulates the growth problem in a general equilibrium context. You should understand and be able to develop the empirical application to war finance and the notion of Ricardian Equivalence.

Readings

Chow, Gregory. 1996. *Dynamic Economics: Optimization by the Method of Lagrange.* Oxford University Press, chapters 1 & 2. Short loan.

Romer, chapter 2, Part A.

Barro and Sala-I-Martin, chapter 2.

Blanchard and Fischer, chapter 2.

Barro, Robert. 1987. "Government Spending, Interest Rates, Prices, and Budget
Deficits in the United Kingdom, 1701-1918." *Journal of Monetary Economics* 20
(September): 221-247. Short loan.

Homework – To be handed out in class.

Weeks 5 and 6 - Overlapping Generations

At the end of this unit you should be able to solve for steady states in the Diamond model, be able to manipulate the model to show how these steady states respond to changes in things like savings rates and population growth rates. You should be able to explain the concept of dynamic inefficiency.

Readings

Romer, chapter 2, Part B.

Blanchard and Fischer, chapter 3.

Azariadis, Costas, and Drazen, Allen. 1990. "Threshold Externalities in Economic Growth." *Quarterly Journal of Economics* 105 (May): 501-526. JSTOR

Spagat, Michael. 2001. "Lectures on Human Capital, Growth and Inequality in Transition Economies." Unpublished manuscript, Short loan and <http://www2.rhnc.ac.uk/~uhte014/>.

Homework – Romer 2.13, 2.14, 2.15.

Weeks 7 and 8 - Endogenous Growth

At the end of this unit you should be able to understand and manipulate at least two simple endogenous growth models. You should have a view on what the new growth literature has added to our understanding of why some countries are rich and other countries are poor.

Romer, chapter 3

Barro and Sala-I-Martin, chapter 4.

Lucas, Robert E., 2000. "Some Macroeconomics for the 21st Century." *Journal of Economic Perspectives* 14 (Winter); 159-168. Shelf.

Murphy, Kevin M., Shleifer, Andrei, and Vishny, Robert W. 1989. "Industrialization and the Big Push." *Journal of Political Economy* 97 (October): 1003-1026. JSTOR

Murphy, Kevin M., Shleifer, Andrei, and Vishny, Robert W. 1991. "The Allocation of Talent: Implications for Growth." *The Quarterly Journal of Economics* 106 (May): 503-530. JSTOR

Homework – Romer 3.1, 3.7, 3.13.

Week 9 - Growth Regressions

At the end of this week you should understand the methodology and methodological problems of the empirical growth literature. You should know what the main findings have been in the field.

Barro and Sala-I-Martin, chapters 10-12.

Barro, Robert J. 2001. "Human Capital and Growth," *American Economic Review* 91 (May), 12-17. Shelf.

Hall, Robert E. and Jones, Charles I. 1997. "Levels of Economic Activity across
American-Economic-Review; 87(2), May 1997, 173-77. JSTOR.

Mancur Olson, Jr., 1996. "Distinguished Lecture on Economics in Government:
Big Bills Left on the Sidewalk: Why Some Nations are Rich, and Others Poor,"
Journal of Economic Perspectives, 10 (2), Spring, 3-24. JSTOR.

Temple, Jonathan, 1999. "The New Growth Evidence," *Journal of Economic Literature*, 37 (March), 112-156. Shelf.

Homework – Merged with Week 10

Week 10 - Real-Business-Cycle Theory

At the end of this week you should know the basic elements of the theory of competitive equilibrium business cycles and the problems it has in explaining actual data. You should be able to solve and manipulate models of the sort presented in class.

Romer, chapter 4.

Blanchard and Fischer, chapter 7.

Kydland, Finn E., and Prescott, Edward C. 1982. "Time to Build and Aggregate
Econometrica 50 (November): 1345-1370. JSTOR.

Mankiw, N. Gregory. 1989. "Real Business Cycles: A New Keynesian Perspective."
Journal of Economic Perspectives 3 (Summer): 79-90. JSTOR.

Nelson, Charles R., and Plosser, Charles I. 1982. "Trends and Random Walks in
Macroeconomic Time Series: Some Evidence and Implications." *Journal of Monetary Economics* 10 (September): 139-162. Short loan.

Stadler, George, 1994. "Real Business Cycles," *Journal of Economic Literature*, 32 (December): 1750-1783. JSTOR.

Homework – Romer 4.8 and 4.9 plus review questions on previous material to be handed out in class