Professor Ryan Edwards
QC Phone: (718) 997–5189
Email: redwards@qc.cuny.edu
Web: http://qcpages.qc.cuny.edu/~redwards

Queens College & Grad Center, CUNY
GC Office: Room 5304
GC Office phone: (212) 817-8273
Office Hours: *by appointment*

Economics 71100: Macroeconomic Theory I
Fall 2008

Meeting time	Location	Final exam
Thursdays 5–8 PM	Graduate Center room 6495	December 18, usual place and time

Course overview. There are now over 300 million people living in the United States, twice as many as were living in this country in 1950. We study macroeconomics because we are concerned about the well-being of these many individuals and of the rest of the world's 6.5 billion people. Microeconomics provides us with tools to understand individual decision-making and welfare, but we need concise and realistic frameworks to assess well-being and economic behavior among much larger groups of individuals.

Still, you will find that much, although not all, of good theoretical macroeconomics develops from *microfoundations* — the math of decision making and well-being that should be familiar from micro. While ultimately the discipline is empirical — great attention was directed toward macro after the devastation of the Great Depression — solid theoretical foundations are crucial parts of modern macroeconomics. The way I think about macro versus micro today is in the explicit modeling of *time* as a key variable in decision making and in outcomes. Other than that, I would say many of the tools are very similar, although the applications are often different.

In this course, we will take inspiration from empirical patterns within and across national economies over time but focus primarily on the theoretical concepts and mathematical models underpinning modern macroeconomics. For those of you more interested in applied macroeconomics and business, come to office hours. If you are uncomfortable with mathematical modeling techniques, you are certainly not alone, but you will find this course difficult. Please come to office hours for additional help.

Office hours. Mondays and Fridays 3–5 PM, *by appointment*, in room 5304. If I am not in 5304, I will have left a notice on the door regarding my location. Please email me in advance so that I can make sure I am available. I do not check my Queens voicemail as frequently.

Required text. We will use *Advanced Macroeconomics 3rd ed.* by David Romer. Please note there are significant differences between editions. You should purchase this book. We will also examine supplemental readings that are listed in the syllabus and available online via JSTOR or other means.

Course requirements. There will be six problem sets graded on a check-plus, check, check-minus basis. It is of utmost importance that you just do the work and hand it in on time. *I will not accept late problem sets*. A check-plus can make up for a check-minus, but even a student with all check-minuses will get 90% of the total points available on the problem sets, *if he or she turns all of them in on time.*

Outside of class attendance and participation, the problem sets are the most valuable tool you have for learning the course material. Feel free to form study groups in order to cover and learn the course

material, but you must submit your own work. *Copying answers will result in a zero for all students whose problem sets are identical.*

The problem sets will be handed out and then due in class on the dates listed in the course schedule in this syllabus. After handing them out, I will also post the problem sets online on the Blackboard course website (see below). Problem set answer keys will also appear on the course Blackboard site.

The **midterm exam** will be held in class on Monday, October 29.

There will also be a **final exam**, which is cumulative, during December 14–22. The exact date, time, and location will be announced as soon as they are known.

Grading. I will determine your final grade based on your performance using the following weights on the course requirements:

Problem sets	15%
Midterm exam	35%
Final exam	50%

Academic honesty. I take cheating very seriously. Cheating consists of acts like copying another student's problem set or exam; copying my lecture slides and turning them in; discussing an exam with anyone during the exam; bringing crib sheets, notes, or other paraphernalia to the exam; and general tomfoolery. Cheating on a problem set earns you a zero and a warning. Cheating on an exam earns you an immediate F for the class and a referral to the appropriate office.

Web sites. Course materials will appear on Blackboard. There is also a publicly viewable course website where I will place the syllabus but nothing else.

The Blackboard website is available at http://www.cuny.edu through the Log-in link at the bottom on the left-hand side. Once in, look for "Blackboard" under "SSO Applications" and click it. Then on the next screen, click on "The Graduate School & University Center." You should see ECON_71100 listed under "My Courses" on the right. Click it.

Help for Blackboard is available at http://qcpages.qc.cuny.edu/edtech/BlackBoard/students.html

Preparation for class. Meeting only once a week for a total of 14 meetings including the midterm is a rough schedule for you, the students. *You must prepare in advance for class and participate* in order to get anything out of it. Read the assigned readings prior to class so you know what to expect.

What does "read" mean? It means read the title, abstract, conclusion, and look at the graphs and tables *in each reading*. Then, if you have more time, go back and read the entire document. The key for you is to see what is out there, not digest every single word and concept.

For each class, I have listed the readings in the order I think you should read them. You should *always* read the passages in the Romer textbook. Readings preceded by an asterisk are more dense and should be skimmed.

Class 1: Introduction and motivation. The central questions in macroeconomics. Overview of Growth and Fluctuations. Begin the Solow Growth Model.

Mankiw, N. Gregory (2006) "The Macroeconomist as Scientist and Engineer," *Journal of Economic Perspectives* 20(4): 29–46.

Lucas, Robert E. (2003) "Macroeconomic Priorities," *American Economic Review* 93(1): 1–13.

*Akerlof, George A. (2007) "The Missing Motivation in Macroeconomics," *American Economic Review* 97(1): 5–36.

*Solow, Robert (1956) "A Contribution to the Theory of Economic Growth," *Quarterly Journal of Economics* 70(1): 65–94.

Romer, David (2006) *Advanced Macroeconomics* 3rd edition. New York: McGraw-Hill / Irwin, Chapter 1, sections 1.1–1.4.

Class 2: Finishing the Solow Model, population and the environment

Romer, David (2006) *Advanced Macroeconomics* 3rd edition. New York: McGraw-Hill / Irwin, Chapter 1, sections 1.5 and 1.8.

*Malthus, Thomas (1798) An Essay on the Principle of Population. Reprinted by the Electronic Scholarly Publishing Project, Chapter 2.

Nordhaus, William D. (1992) "Lethal Model 2: The Limits to Growth Revisited," *Brookings Papers on Economic Activity* 1992(2): 61–156.

Class 3: Cross-country income differences, institutions, and health

Romer, David (2006) *Advanced Macroeconomics* 3rd edition. New York: McGraw-Hill / Irwin, Chapter 1, sections 1.6, 1.7 and Chapter 3, Part B, sections 3.8–3.10.

Hall, Robert E. and Charles I. Jones (1999) "Why Why Do Some Countries Produce So Much More Output Per Worker Than Others?" *Quarterly Journal of Economics* 114(1), 83–116.

Bloom, David E. and Jeffrey D. Sachs (1998) "Geography, Demography, and Economic Growth in Africa," *Brookings Papers on Economic Activity* 1998(2): 207–295.

Nordhaus, William D. (2006) "Geography and macroeconomics: New data and new findings," *Proceedings of the National Academy of Sciences* 103(1): 3510–3517.

Acemoglu, Daron, Simon Johnson, and James A. Robinson (2001) "The Colonial Origins of Comparative Development: An Empirical Investigation," *American Economic Review* 91(5): 1369–1401.

Bloom, David E., David Canning, and Jaypee Sevilla (2004) "The Effect of Health on Economic Growth: A Production Function Approach," World Development 32(1): 1–13.

Acemoglu, Daron, and Simon Johnson (2006) "Disease and Development: The Effect of Life Expectancy on Economic Growth." National Bureau of Economic Research Working Paper No. 12269.

Class 4: The Ramsey-Cass-Koopmans Model and endogenous capital accumulation

Romer, David (2006) *Advanced Macroeconomics* 3rd edition. New York: McGraw-Hill / Irwin, Chapter 2, Part A, sections 2.1–2.7.

Nordhaus, William D. (2007) "The *Stern Review* on the Economics of Climate Change," unpublished working paper, May.

Class 5: The Ramsey-Cass-Koopmans Model II and applications

Romer, David (2006) *Advanced Macroeconomics* 3rd edition. New York: McGraw-Hill / Irwin, Chapter 2, Part A, sections 2.1–2.7.

Cutler, David M., James M. Poterba, Louise Sheiner, and Lawrence H. Summer (1990) "An Aging Society: Opportunity or Challenge?" Brookings Papers on Economic Activity 1990(1): 1–56.

Mankiw, N. Gregory and Matthew Weinzierl (2004) "Dynamic Scoring: A Back-of-the-Envelope Guide," NBER Working Paper 11000, December.

Class 6: The Diamond Model and overlapping generations

Romer, David (2006) *Advanced Macroeconomics* 3rd edition. New York: McGraw-Hill / Irwin, Chapter 2, Part B, sections 2.8–2.12.

*Samuelson, Paul A. (1958) "An Exact Consumption-Loan Model of Interest with or without the Social Contrivance of Money," *Journal of Political Economy* 66(6): 467–482.

*Diamond, Peter A. (1965) "National Debt in a Neoclassical Growth Model," *American Economic Review* 55(5, Part 1): 1126–1150.

Class 7: New Growth Theory, models of R&D, knowledge production, population, and health

Romer, David (2006) *Advanced Macroeconomics* 3rd edition. New York: McGraw-Hill / Irwin, Chapter 3, Part A, sections 3.1–3.7.

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

Romer, Paul M. (1990) "Endogenous Technical Change," *Journal of Political Economy* 98(5 Part 2): S71–S102.

Kremer, Michael (1993) "Population Growth and Technological Change: One Million B.C. to 1990," *Quarterly Journal of Economics* 108(3): 681–716.

Galor, Oded and David N. Weil (2000) "Population, Technology, and Growth: From Malthusian Stagnation to the Demographic Transition and beyond," *American Economic Review* 90(4): 806–828.

Hall and Jones (2007) "The Value of Life and the Rise in Health Spending," Quarterly Journal of Economics 122(1): 39–72.

MIDTERM EXAM in class on Monday, October 29

Class 8: Introduction to and overview of Fluctuations, start Real Business Cycle Theory

Romer, David (2006) *Advanced Macroeconomics* 3rd edition. New York: McGraw-Hill / Irwin, Chapter 4, sections 4.1–4.5.

Alvarez, Fernando and Urban J. Jermann (2004) "Using Asset Prices to Measure the Cost of Business Cycles," *Journal of Political Economy* 112(6): 1223–1256.

Ruhm, Christopher J. (2000) "Are Recessions Good for Your Health?" *Quarterly Journal of Economics* 115(2): 617–650.

Class 9: Real Business Cycle Theory II

Romer, David (2006) *Advanced Macroeconomics* 3rd edition. New York: McGraw-Hill / Irwin, Chapter 4, sections 4.6–4.10.

Class 10: Consumption, the life cycle, and the Permanent Income Hypothesis

Romer, David (2006) *Advanced Macroeconomics* 3rd edition. New York: McGraw-Hill / Irwin, Chapter 7, sections 7.1–7.4.

Kotlikoff, Laurence J. and Lawrence H. Summers (1981) "The Role of Intergenerational Transfers in Aggregate Capital Accumulation," *Journal of Political Economy* 89(4): 706–732.

Gourinchas, Pierre-Olivier and Jonathan A. Parker (2002) "Consumption over the Life Cycle," *Econometrica* 70(1): 47–89.

Class 12: Consumption, asset pricing, and excess sensitivity

Romer, David (2006) *Advanced Macroeconomics* 3rd edition. New York: McGraw-Hill / Irwin, Chapter 7, sections 7.5–7.6.

Kocherlakota, Narayana R. (1996) "The Equity Premium: It's Still a Puzzle," *Journal of Economic Literature* 34(1): 42–71.

Benartzi, Shlomo and Richard H. Thaler (1995) "Myopic Loss Aversion and the Equity Premium Puzzle," *Quarterly Journal of Economics* 110(1): 73–92.

Carroll, Christopher D. (1992) "The Buffer-Stock Theory of Saving: Some Macroeconomic Evidence," *Brookings Papers on Economic Activity* 1992(2): 61–156.

Carroll, Christopher D. (1997) "Buffer-Stock Saving and the Life Cycle/Permanent Income Hypothesis," *Quarterly Journal of Economics* 112(1): 1–55.

Carroll, Christopher D. (2000) "Requiem for the Representative Consumer? Aggregate Implications of Microeconomic Consumption Behavior," *American Economic Review* 90(2): 110–115.

Mankiw, N. Gregory (2000) "The Savers–Spenders Theory of Fiscal Policy," American Economic Review 90(2): 120–125.

Dynan, Karen E., Jonathan Skinner, and Stephen P. Zeldes (2004) "Do the Rich Save More?" Journal of Political Economy 112(2): 397–444.

Class 13: Investment with fixed adjustment costs, q-Theory

Romer, David (2006) *Advanced Macroeconomics* 3rd edition. New York: McGraw-Hill / Irwin, Chapter 8, sections 8.1–8.5.

Stephen Oliner; Glenn Rudebusch; Daniel Sichel (1995) "New and Old Models of Business Investment: A Comparison of Forecasting Performance," *Journal of Money, Credit and Banking* 27(3): 806–826.

Class 14: Investment under uncertainty and market imperfections

Romer, David (2006) *Advanced Macroeconomics* 3rd edition. New York: McGraw-Hill / Irwin, Chapter 8, sections 8.6–8.10.

Caballero, Ricardo J. (1997) "Aggregate Investment," *NBER Working Paper* 6264, November.

Week	Thursday	
1	**28-Aug** Class 1: Growth part 1 of 7	Introduction, motivation, begin the Solow Model Reading: Romer, Chapter 1; Problem Set 1 handed out
2	**4-Sep** Class 2: Growth part 2 of 7	Finish the Solow Model Reading: Romer, Chapter 1
3	**11-Sep** Class 3: Growth part 3 of 7	Cross-country income differences Reading: Romer, Chapter 3 Part B; Problem Set 1 due, Problem Set 2 handed out
4	**18-Sep** Class 4: Growth part 4 of 7	The Ramsey-Cass-Koopmans Model I Reading: Romer, Chapter 2 Part A; Problem Set 2 due
5	**25-Sep** Class 5: Growth part 5 of 7	The Ramsey-Cass-Koopmans Model II Reading: Romer, Chapter 2 Part A; Problem Set 3 handed out
6	**2-Oct** Class 6: Growth part 6 of 7	The Diamond Model of overlapping generations Reading: Romer, Chapter 2 Part B; Problem Set 3 due
7	**9-Oct** **NO CLASS; YOM KIPPUR**	
8	**16-Oct** Class 7: Growth part 7 of 7	New Growth Theory Reading: Romer, Chapter 3 Part A
9	**23-Oct** Class 8: Fluctuations part 1 of 2	Introduction to Fluctuations, the Real Business Cycle Reading: Romer, Chapter 4
10	**30-Oct** IN-CLASS MIDTERM EXAM	
11	**6-Nov** Class 9: Fluctuations part 2 of 2	Real Business Cycle II Reading: Romer, Chapter 4; Problem Set 4 handed out
12	**13-Nov** Class 10: Consumption part 1 of 2	Consumption I: Permanent Income and the Life Cycle Reading: Romer, Chapter 7; Problem Set 4 due
13	**20-Nov** Class 11: Consumption part 2 of 2	Consumption II: Asset pricing Reading: Romer, Chapter 7; Problem Set 5 handed out
14	**27-Nov** **NO CLASS; THANKSGIVING**	
15	**4-Dec** Class 12: Investment part 1 of 2	The q-Theory of Investment Reading: Romer, Chapter 8
16	**11-Dec** Class 13: Investment part 2 of 2	Investment under uncertainty and imperfections Reading: Romer, Chapter 8; Problem Set 5
17	**18-Dec** Final exam during normal class time, 5-8 PM	