

Economics 602
Macroeconomic Theory
Syllabus
Professor Sanjay Chugh
Fall 2011

Meetings: Mondays, 6:00pm-8:45pm

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Course website: www.skchugh.com (through the “Teaching” link)

Course Objectives: Our broad objective will be to develop the foundations of modern macroeconomic theory, which builds explicitly on the principles of microeconomic theory, and use it to study a variety of macroeconomic issues. A key focus will be on the levers by which fiscal policy and monetary policy can affect the economy. We will trace through some of the history that led to modern macroeconomic theory being what it is today. Throughout, the emphasis will be on theoretical and logical rigor and policy applications, including to the conduct of policy amidst the current economic downturn.

Grading: The final grade will be based on a midterm exam (worth 40% of your final course grade) and a cumulative final exam (worth 60% of your final course grade). The exams are scheduled for:

Midterm Exam: Monday, October 24, 2011 (regular class time and location)
Final Exam: Monday, December 12, 2011 (last scheduled class meeting)

All students are expected to attend both exams.

Texts: The primary texts for the course will be a set of lecture notes I will provide (*A Short Course in Representative-Agent Macroeconomics*). These notes may be periodically updated. I will also provide you with a set of notes that reviews basic concepts from introductory macroeconomics (which everybody is expected to have completed). These latter notes are intended to provide a review of basic principles of macroeconomics and are primarily (along with your own previous introductory macroeconomics text and notes) for your reference. In addition, a few topics will be developed through additional notes and readings I provide you.

Some students may find a useful **supplement** the text *Macroeconomics* (4th edition, February 2010; the 3rd edition is fine, as well) by Stephen Williamson. This text covers material at a similar level, but does not cover all of the topics that we will cover in this course. For interested students, I can offer some guidance as to what sections of this text are the most appropriate for exploring in more depth the topics we cover. Note that this latter text is *not* required reading.

Outline of topics: The following is a sketch of topics we will cover this semester – it may be modified as the course progresses.

Representative Agent Macroeconomics

Reading: *Short Course*, Chapter 0

Microeconomics of Consumer Theory

- Utility Theory
- Budget Constraints
- Optimal Choice
- Lagrangian Optimization

Reading: *Short Course*, Chapter 1

Static Consumption-Leisure Model

- The Two “Goods”: Consumption and Leisure
- Real Wages
- Aggregate Labor Supply Function
- Consumption Demand Function
- Lagrangian Analysis

Reading: *Short Course*, Chapter 2

The Consumption-Savings Model

- A Simple Intertemporal Utility Function
- Budget Constraints
- Optimal Intertemporal Choice – Consumption and Savings

Reading: *Short Course*, Chapter 3

Inflation and Interest Rates in the Consumption-Savings Model

- The Fisher Equation
- Real Interest Rate
- Consumption-Savings Model Revisited
- Aggregate Private Savings Function
- Lagrangian Analysis: Lifetime Lagrangian vs. Sequential Lagrangian

Reading: *Short Course*, Chapter 4

Ricardian Equivalence and Crowding Out

- Basic Terminology
- Government Budget Constraints
- Taxation and Consumer Budget Constraints
- Ricardian Equivalence
- Distortionary Taxes and the Failure of Ricardian Equivalence

- Changes in Government Spending
- Lump-Sum vs. Distortionary Taxes

Reading: *Short Course*, Chapter 7

Infinite-Horizon Consumer Problem and Asset Pricing

- Basic Formulation
- Subjective Discount Factor
- Flow Budget Constraint
- Asset Structure
- Basic Asset Pricing Model
- Consumption-Savings Optimality in Infinite-Horizon Form
- Steady-State Real Interest Rate

Reading: *Short Course*, Chapter 8

MIDTERM EXAM (MONDAY, OCTOBER 24, 2011)

Firms: Labor Demand, Investment Demand, and Aggregate Supply

- Aggregate Production Function
- A Multi-Period Model of Firms
- Dynamic Firm Profit Function
- Labor Demand
- Investment Demand
- Cobb-Douglas Production Function
- Production Function Shocks

Reading: *Short Course*, Chapter 6

Preference Shocks

- A Utility Function Augmented with Shocks
- Effects on Consumption Demand Function

Reading: *Short Course*, Chapter 9

Intertemporal Consumption-Leisure Model

- Individual's Preferences
- Lifetime Budget Constraint
- Extension of Consumption-Leisure and Consumption-Savings Optimality Conditions Concepts to Infinite-Horizon

Reading: *Short Course*, Chapter 5

History of Macroeconomics

- The Rise of Macroeconomics

- Keynesianism
- The Macroeconometric Models
- The Phillips Curve
- The Breakdown of Macroeconomic Theory and Policy in the 1970's
- The Lucas Critique
- The Real Business Cycle Revolution

Reading: Nobel Lectures by Edward Prescott, Finn Kydland, Robert Lucas, and Robert Solow; essays by N. Greg Mankiw and George Akerlof

Real Business Cycle Theory

- The RBC Technology Shock
- Technology Shocks and Aggregate Fluctuations – An Overview
- Technology, Factor Prices, and Output
- Effects on Consumption-Leisure Margin
- Effects on Consumption-Savings Margin
- Putting it Together – Business Cycle Fluctuations

Reading: *Short Course*, Chapter 13

The Phillips Curve

- Nominal Rigidities and the Short-Run Phillips Curve
- The Long-Run Phillips Curve
- The Great Breakdown of Macroeconomic Theory

Reading: *Short Course*, Chapter 11

New Keynesian Economics

- Differentiated Goods and the Consumption Aggregator
- Monopolistically Competitive Firms
- The Aggregate Price Level and Aggregate Consumption Demand
- Staggered Price-Setting
- Critique of New Keynesian Theory
- Appendix: Theories of Price Stickiness

Reading: *Short Course*, Chapter 12 (including “Menu Cost” topic in Appendix)

Money in the Intertemporal Model

- Money-in-the-Utility-Function Model
- Linkage between Money Markets and Bond Markets
- Consumption-Money Optimality Condition
- Money Demand Function
- Neutrality and the RBC vs. New Keynesian Debate
- Monetarism: the Link Between Money Growth and Inflation

Reading: *Short Course*, Chapter 14

Interactions between Fiscal and Monetary Policy

- Consolidated Government Budget Constraint
- Seignorage Revenue and Inflationary Finance
- Active vs. Passive Monetary and Fiscal Policies
- Ricardian vs. Non-Ricardian Fiscal Policies
- Fiscal Theory of the Price Level
- Fiscal Theory of Inflation

Reading: *Short Course*, Chapter 15

Financial Markets Imperfections and Interactions with the Macroeconomy

- Informational Asymmetries in Financial Transactions
- “Financial Accelerator” Model
- Role of Collateral and Net Worth
- Risk Premium
- Shocks to Asset Prices and the “Adverse Feedback Loop”
- Policy Implications and Applications

Reading: Supplemental Notes and Readings

Fiscal Policy and Nominal Exchange Rates (time permitting)

- A Supply-Demand Look
- The Fiscal Theory of Exchange Rates
 - o Money Demand Function
 - o Purchasing Power Parity (PPP)
 - o Interest Parity Condition
 - o Government Budget Constraint
- Analyzing a Fixed Exchange Rate System
- Balance of Payments Crisis
- Role of fiscal policy in exchange rate systems

Reading: *Short Course*, Chapter 16

Optimal Monetary Policy with Flexible Prices (time permitting)

- The cash-in-advance model
- Structure of optimal policy problems
- The Friedman Rule

Reading: *Short Course*, Chapter 17

FINAL EXAM (MONDAY, DECEMBER 12, 2011)
