Monetary Theory I
Syllabus
Professor Sanjay Chugh
Fall 2015

Meetings: Tuesdays and Thursdays, 10:30am-11:45am
Maloney Hall 313

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Prerequisites: The first-year economics Ph.D. sequence (in particular, EC750.01 and 751.01). Auditors and other upper-level students welcome, but are expected to actively participate in both class discussion and assignments.

Grading: The final course grade will be based on:
1. Completing a “computational primer:” solving computationally for the deterministic steady state of the basic RBC model – 10% of final grade.
2. Computationally solving and simulating the basic RBC model, tabulating business cycle statistics and impulse responses (written as a complete, short paper) – 20% of final grade.
3. Two other projects to be assigned during the course, each of which will be computationally and/or analytically oriented (each written as a complete, short paper) – (total of 20% of final grade).
4. In-class presentation of a paper (from a designated set of papers) – 20% of final grade.
5. Assorted assignments, short writing pieces, quizzes, etc – 10% of final grade.

Reference Texts: Some “all-purpose” macroeconomics and texts that are likely to be useful to have on your shelf/eshelf:

Objectives: There are three main objectives for the course.

1. First, the course will trace through some seminal branches of macroeconomic theory over the past 30 years. Emphasis will be on business cycle modeling, which was the proximate cause of the revolution in macroeconomics 30 years ago, and macro-labor issues. We will trace these arcs of thought through to modern quantitative partial equilibrium and general equilibrium business cycle models, and identify/examine where some of the current research frontiers lie.

2. A second fundamental objective is to either get started on or continue becoming comfortable with computational solutions of partial equilibrium and general equilibrium business cycle models. Modern macroeconomics can be computationally intensive. We will study basic tools that macroeconomists typically use to approximate and solve business cycle models. This means “rolling up your sleeves” and learning (if you do not know already) some basic programming and computing techniques. Our laboratory for developing computational techniques will first be the baseline RBC model, and then we will progress to models that introduce various departures from the baseline competitive RBC model.

3. Third, a necessary condition to be a successful economist (not just a successful macroeconomist) is effective communication skills, both written and spoken. It is never too early to begin (or continue) developing such skills. I will insist that all assignments/projects be written as if they were small “papers,” with a clear motivation laid out at the outset, a clear presentation of the model(s) used, a clear description of the methodology employed, effective presentation of and discussion of results, and so on. The required in-class presentation of a paper (from among the set of papers I will designate as “student presentation”) also fosters this objective.

In all written submissions of papers, the following should be completely clear after the abstract and the first two paragraphs of your paper: the basic question your paper/project addresses; the big-picture answer(s) your paper provides; why this ought to be of interest to macroeconomists; and (related) how/along what dimensions your work advances the relevant field of knowledge. If, after reading the first two paragraphs of your submission, I judge that you have not clearly explained these basics, your paper will be returned to you ungraded for you to improve and resubmit.
Outline of Topics: The following is a list of topics and references. Due to time constraints, we will certainly not be able to cover all of these topics. Nevertheless, the topics we skip are, in my view, important ones in macroeconomics, so selected important readings and references for these are provided.

UNIT I: Arrow-Debreu General Equilibrium Theory and Introduction to Computational Methods and Tools

1. A (Brief and Partial) History of Macroeconomics and the Evolving Agenda


2. Review of Dynamic Stochastic General Equilibrium (DSGE) Theory


3. Review of / Basics of Dynamic Programming


23. Ljungqvist and Sargent text, Chapter 1.4, Chapter 2.2, Chapter 3, 4, 5

24. Stokey, Lucas, and Prescott textbook
4. Basic Computational Methods and Calibration


UNIT II: Macro-Labor

5. Macro-Labor I: Labor-Leisure Margin


6. Macro-Labor II: Employment-Unemployment Margin


UNIT III: Product Markets

7. Product Markets


75. Robinson, Joan. 1933. *The Economics of Imperfect Competition*.


UNIT IV: Optimal Fiscal Policy


