Course Syllabus
Econ 205B, Winter 2017

Administrative Information

- Main Instructor: Hikaru Saijo
- Office Hours: Thursdays, 1:20pm - 3:20pm @ 465 Engineering 2
- Contact: hsaijo@ucsc.edu
- Lectures: T/TH, 3:20 – 4:55pm @ J Baskin Engr 169
- Course Website: eCommons
- Midterm exam is tentatively scheduled on Feb 9 (Thurs). Final exam date March 20 (Mon) 4pm–.

Course Description

This is the second of the first-year macroeconomics sequence of the PhD program. The course will focus on building and analyzing dynamic stochastic general equilibrium (DSGE) models. DSGE models has become a foundation for research on aggregate fluctuations.

Almost all studies in the area involves quantitative experiments. Therefore I will cover tools necessary for computations and students are expected to conduct some exercises using a computer language such as Matlab and a package such as Dynare (http://www.dynare.org/).

Course Materials

There is no required textbook for this course. My lecture will draw on various readings and I will highlight those as the course progresses. I will also make my lecture notes available on the course website. Below I point out some books that are useful as a general reference.

- Ljungqvist and Sargent, *Recursive Macroeconomic Theory*, 3rd edition.
- Cooley, *Frontiers of Business Cycle Research.*
- Walsh, *Monetary Theory and Policy*, 3rd edition.
- Adda and Cooper, *Dynamic Economics: Quantitative Methods and Applications.*

Grading

- 3–4 homeworks (check, check plus, check minus): 10%
- Midterm exam: 40%
- Final exam: 50%

General Outline

1. The basic real business cycle (RBC) model
   (a) Formulation
   (b) Computation (linearization / value function iteration / using Dynare)
   (c) Calibration
   (d) Model vs. facts: success and failure
2. Extensions of the RBC model
   (a) Indivisible labor
   (b) Fiscal shocks
   (c) Other extensions (investment shock / home production / international RBC / news shock)
3. Money in RBC models
   (a) Money-in-the-Utility (MIU) model
   (b) Cash-in-Advance (CIA) model