Objective: The second half of Economics 712 aims to continue to build your knowledge of quantitative and theoretical macroeconomics. The course will emphasize the tools of dynamic programming and various applications of it. The applications will include economic growth, business cycles, incomplete markets, technological change, and human capital investment, to name a few.

Office Hours: 1-3 on Thursday.

TA: The TAs for the course are Anton Babkin and Fu Tan.

Grading: Grades will be based on the final exam and a few (4) homework assignments. These assignments will together constitute 15% of the grade (10% for the problem sets and 5% for the computational exercise), with the rest (35%) being determined by the Final to be held on Dec. 15.

Homework Assignments: Periodically, problems will be assigned. These also serve as a guide to what you could expect in the Final and the prelim. The TA will go over the solutions to some of the assigned problems during the discussion section. There will be one computational exercise which will require you to solve an incomplete market economy.

Reading List (Topics)

1. Dynamic Programming (8-10 lectures)

We will essentially go through discrete time dynamic programming. We shall hopefully cover both the deterministic and stochastic cases. Stokey and Lucas (Recursive Methods in Economic Dynamics) contains all the essential results, but it is a hard read for a beginner. So, we shall rely on lecture notes prepared by Dirk Krueger. These notes are self-contained.
2. Real Business Cycles (1-2 lectures)


2A. More on Calibration

(This topic will not be covered in class, but you may want to glance through these papers)


3. The Labor Market (1 lecture)


4. Incomplete Markets (2 lectures)


5. Human Capital Investment (1 Lecture)


6. Inequality, Stratification and Growth (1 Lecture)

