Syllabus for Econ 525a:

TOPICS IN MACROECONOMICS AND INEQUALITY

Course Objectives: Traditional macroeconomic models postulate relations between aggregate variables such as output, inflation, and unemployment. More modern treatments derive such relations from a microeconomic model with a “representative-agent” construct. Although these “microfounded” models are more satisfactory in a number of ways—for example, they permit the analysis of the welfare consequences of economic policy—they often fail to consider explicitly differences across households in the economy. These models, therefore, are largely silent on issues that have always played a central role in the macroeconomic debate, in particular, issues of inequality, and of how inequality is affected by, and in turn affects, macroeconomic variables and macroeconomic policy.

The objective of this course is to develop frameworks for analyzing the interaction between macroeconomics and inequality in model settings that are suited for both positive and normative analysis, i.e., ones that rest on solid microfoundations. The beginning of the course will examine settings in which the representative-agent construct is valid: i.e., ones in which aggregation holds. These models are potentially useful in understanding how macroeconomic variables affect the evolution of inequality, but they are silent on the fundamental determinants of inequality and they do not allow for feedback from inequality to aggregate variables. The remainder of the course considers various departures from the assumptions that guarantee aggregation. Most of this analysis takes place in models that can be analyzed only by numerical solution. Accordingly, part of the course will be devoted to developing useful computational tools.

Contact Information
Office: 28 Hillhouse, Room 306
Office phone: (203) 432-3583
Email address: tony.smith@yale.edu
Course web site: http://www.econ.yale.edu/smith/econ525a
Office hours: Thursdays from 2:30PM to 4PM, or by appointment
**Class Meetings:** The class meets on Mondays and Wednesdays from 1:30PM to 2:50PM in Room B1 (28 Hillhouse).

**Prerequisites:** This course is designed for graduate students in economics who have taken first-year graduate courses in microeconomics, macroeconomics, and econometrics.

**Course Requirements:** The course requirements for the first half of the course are three-fold: (1) present in class one paper (to be chosen from a specified list) and write a “referee report” on this paper; (2) complete several homework assignments; (3) write a research paper relating to the course material in either of the two halves of the course (the second half being taught by Professor Eduardo Engel).

The referee report should be no longer than five pages and should contain a clear and concise exposition of the main points of the article as well as a critical evaluation of the article’s contributions. Some possibilities for acceptable research papers for the first half of the course include: (1) designing and implementing a numerical algorithm to solve an existing general equilibrium model of inequality; (2) developing and analyzing a generalization or a modification of a paper (or a combination of two or more papers) relating to macroeconomics and inequality; (3) taking the first steps towards an original contribution to the literature on macroeconomics and inequality.
COURSE OUTLINE

The literature on macroeconomics and inequality is still relatively young, but is growing rapidly. This course is organized around the following set of topics within this field. This set is not exhaustive of all the different lines of research in macroeconomics and inequality. For example, it includes very little of the literature studying how voting (over taxation and redistribution policy) affects growth and inequality in general equilibrium settings, and it includes very little of the literature studying how private information and inequality interact. The course will cover the first eight topics below, and then choose from the remaining eight topics depending on time and student interest.

In addition, there will be guest lectures (on topics to be announced) by Mikhail Golosov from M.I.T. (on September 10 and 12) and Aleh Tsyvinski from Harvard (on October 8 and 10).

1. Facts about U.S. economic inequality
2. Models with aggregation
3. Incomplete markets I: no aggregate uncertainty, infinitely-lived agents
4. Incomplete markets II: no aggregate uncertainty, overlapping generations
5. Incomplete markets III: aggregate uncertainty, infinitely-lived agents
6. Incomplete markets IV: aggregate uncertainty, overlapping generations
7. Incomplete markets V: limited asset market participation
8. Computation in heterogeneous-agent models
9. Policy issues I: welfare costs of business cycles
10. Policy issues II: distributional effects of fiscal policy
11. Policy issues III: distributional effects of monetary policy
12. Empirical models of household risk
13. Models of wealth inequality
14. Endogenous borrowing constraints
15. Macroeconomics and the family
16. Inequality and growth
The article below provides an introductory survey of many of the topics covered in the course:


A working-paper version of this article is available on the course web site.

**READING LIST**

The reading list below is not intended to be comprehensive. It is designed instead to highlight some of the key papers and to illustrate the range of research that has been (or is currently being) conducted within each of the specific topics. Required readings are marked with an asterisk.

1. **Facts about U.S. economic inequality**


2. **Models with aggregation**


3. Incomplete markets I: no aggregate uncertainty, infinitely-lived agents


4. Incomplete markets II: no aggregate uncertainty, overlapping generations


5. Incomplete markets III: aggregate uncertainty, infinitely-lived agents


6. Incomplete markets IV: aggregate uncertainty, overlapping generations


7. Incomplete markets V: limited asset market participation


8. Computation in heterogeneous-agent models


9. Policy issues I: welfare costs of business cycles


10. Policy issues II: distributional effects of fiscal policy


11. **Policy issues III: distributional effects of monetary policy**


12. **Empirical models of household risk**


13. Models of wealth inequality


14. Endogenous borrowing constraints


15. Macroeconomics and the family


16. Growth and inequality


