

---

**ECON 23620: Inequality: A Macroeconomic Perspective**  
**Autumn 2017**

**Greg Kaplan**  
**University of Chicago**  
[gkaplan@uchicago.edu](mailto:gkaplan@uchicago.edu)

---

**Course Information**

Instructor: Greg Kaplan  
Lectures: Monday, 3:00-5:50, STU 102  
Office Hours: Wednesday 2:00-2:50, SHFE 408  
Prerequisites: ECON 20300, and ECON 20900 or ECON 21000

TA: Gustavo Gonzalez [ggonzalezl@uchicago.edu](mailto:ggonzalezl@uchicago.edu)  
Discussion Class: Wednesday, 3:00-3:50, STU 102  
Office Hours: Thursday, 2:00-2:50

**Summary**

This course is an introduction to macroeconomics for people who care about distributions, not just aggregate economic outcomes.

**Warning**

We will make extensive use of mathematics, statistics, numerical methods and computer programming. This is useful because it facilitates a deeper analysis of the economic forces that shape the distribution of economic outcomes than would be achievable using words and pictures alone. It is also useful because it allows for a quantitative analysis of inequality: math is the language that allows theories, data and computers to talk to one another. The course is both “practical”, in the sense that students will be expected to get their hands dirty with micro-datasets, and “theoretical”, in the sense that students will be using economic models to shed light on these data. This course lies at both the intersection of microeconomics and macroeconomics, and the intersection between theoretical and empirical investigation. This combination can be difficult, and there is a limit to what we can achieve in only ten weeks. So we will focus mostly on learning the relevant tools and techniques that are used by macroeconomists who care about inequality. Students who do not find such a quantitative, computational approach to the study of inequality appealing, and who would prefer a more policy-oriented approach are advised to consider taking one of the other courses on inequality that are offered by the department.

## Materials

Unfortunately, there does not exist a textbook with the proper level and focus for this course. Instead, I will rely on lecture notes and journal articles. There are a number of review articles that summarize the academic literature on heterogeneous agent macroeconomics that you will find useful. These include:

- Quadrini, V and J. V. Rios-Rull (2015) *Inequality in Macroeconomics*, Handbook of Income Distribution, Volume 2B 1229-98
- Heathcote, J., K. Storesletten and G. Violante (2009) *Quantitative Macroeconomics with Heterogeneous Households*, Annual Reviews of Economics, 1:319-54
- Guvenen, F. (2011) *Macroeconomics with Heterogeneity: A Practical Guide*, Federal Reserve Bank of Richmond Economic Quarterly, 97 (3), 255-326
- Attanasio, O. and G. Weber (2010) *Consumption and Saving: Models of Intertemporal Allocation and Their Implications for Public Policy*, Journal of Economic Literature 48: 693-751
- Krueger, D., K. Mitman and F. Perri (2016) *Macroeconomics and Household Heterogeneity*, Handbook of Macroeconomics

With regards the computational aspects of the class, you may find the following textbooks useful:

- Miranda and Fackler (2002) *Applied Computational Economics and Finance*
- Ljungqvist and Sargent (2012) *Recursive Macroeconomic Theory*
- Judd (1998) *Numerical Methods in Economics*

With regards the theoretical aspects of the course, you may find the following textbook useful:

- Japelli and Pistaferri (2017) *The Economics of Consumption*

## Requirements

1. Homework assignments (4): **20%**
2. Mid-term exam **30%**: to be held on Monday October 30, in class
3. Final exam **45%**: to be held on Friday December 8, 1:30-3:30pm
4. Class participation **5%**

Note: Class participation and attendance at discussion sections are both strongly encouraged. Hints for the problem sets may be presented in precepts.

## Problem Sets

There will be 4 problem sets, mostly expanding upon material covered in lectures. Problem sets will typically consist of 3 parts. In the first part, you might be asked to read an academic paper and answer some questions about its content. In the second part, you might be asked to download some data, compute measures of inequality from the data, and comment on the results. In the third part, you might be asked to solve an economic model on the computer by writing appropriate code, and to generate some output from the model.

The problem sets will be due by 3:00pm on Mondays of weeks 2, 4, 7 and 9. They will be returned in the TA sessions on Wednesdays of those weeks. The TA is responsible for grading the problem sets. Therefore, **all questions** related to the problem sets, including requests for extensions, should be submitted to the TA.

You are permitted to work with your classmates but you are required to turn in individual answers. You must credit the people with whom you have worked on the problem set with. Late problem sets will **not** be accepted. If you anticipate handing in your problem set late, you must inform your TA with a valid explanation before the deadline. If you want your problem sets re-graded, you must read our solutions first and then make your request to your preceptor within **one week** upon the return of your problem set. You forgo your right to have your problem set re-evaluated after the one-week period. The preceptor will re-grade the **whole** problem set not just the question you want re-graded. Re-evaluation does not guarantee higher grades.

## Topics

1. Consumption-Savings Problems
2. Wealth Distribution in Partial Equilibrium
3. Wealth Distribution in General Equilibrium
4. Income Distribution and Dynamics

Along the way we will use the models and tools that we develop to address a number of practical issues, including:

- Retirement savings and population aging
- Hand-to-mouth households
- Fiscal stimulus policy
- Redistributive taxation
- Top income inequality and top wealth inequality
- Lifecycle inequality
- Human capital investments