

Econ 500a, Yale University  
**General Economic Theory: Microeconomics**  
Part 2: General Equilibrium and Welfare Economics  
Fall 2024  
*Syllabus*

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Updated: December 09, 2024

This is the second half of the first course in the Economics PhD first-year micro sequence. I have taught this course in the past, but I'm significantly upgrading the material this year, so I may adjust the syllabus before the course starts and throughout the semester.

General equilibrium and welfare economics are the foundation of many (most?) areas in economics, in particular, financial economics, international trade, public finance, and macroeconomics.

## 1 Logistics

- Classroom: 87 Trumbull Street, B120
- Class Time: Tuesdays (Tu) and Thursdays (Th) from 08:30am to 9:50am. There are 12 lectures.
- Office Hours: By appointment (just write me an email, Tuesdays and Thursdays often work better for me). I'd be happy to chat before or after class.
- Teaching Fellow: Kentaro Sakata ([kentaro.sakata@yale.edu](mailto:kentaro.sakata@yale.edu)). TF related information will be posted on the course website.
  - Any questions regarding the problem sets should be addressed to the teaching fellow. The job of the TF is to help you: feel free to also ask the TF any questions about the content of the course.
  - Section times: The times will be announced in class and posted on the course website.
- Important Dates
  - First Class: Tuesday 10/22
  - Last Class: Thursday 12/5
  - Final Exam: Friday 12/13
- Grades:
  - Problem Sets: 30% (Collaboration is encouraged, but each student should compose and submit his/her own solution.)

- Midterm Exam: 35%
- Final Exam: 35%
- Homework: There are five problem sets. You are encouraged to work in groups on the problems, but you must hand in your own write-up and you are asked to acknowledge any help you received on the front page of your submission. Late problem sets are not accepted.
- Mobile devices: Research has shown that computers and cell phones in the classroom diminish our ability to learn. If you feel that you need to use your laptop or phone, please sit in the last rows of the classroom.

## 2 Outline

- Block 1. Static Exchange Economies
  1. The Economy
  2. Edgeworth Box Economy:  $I = J = 2$
  3. Static Exchange Economies:  $I \geq 1, J \geq 1$
  4. Efficiency and Welfare
  5. Microfounding Competition
  6. Competitive Equilibrium: Positive Properties
- Block 2. Static Production Economies
  1. Elementary Static Production Economies
  2. General Static Production Economy:  $I \geq 1, J \geq 1, F \geq 1$
  3. Efficiency and Welfare
  4. Applications
- Block 3. Dynamic Stochastic Economies
  1. Dynamic Economies
  2. Stochastic Economies
  3. Asset Pricing
  4. Efficiency and Welfare
  5. Incomplete Markets (if time allows)
  6. Firms and Ownership (if time allows)
  7. Accumulation Technologies (if time allows)

### 3 References

I will distribute self-contained lecture notes and slides for each of the topics in the course. If you have to refer to this, please reference them

- Eduardo Davila, General Equilibrium and Welfare Economics, manuscript 2024

In addition to going over my notes, I recommend reading the relevant material in

1. Andreu Mas-Colell, Michael Whinston, and Jerry Green, Microeconomic Theory. Oxford University Press, 1995
2. David Kreps, Microeconomic Foundations I: Choice and Competitive Markets. Princeton University Press, 2013

#### Further Readings

These are good references for many topics covered (and not covered) in the course.

- Geoffrey A. Jehle and Philip J. Reny, Advanced Microeconomic Theory, Pearson, 2001
- Gerard Debreu, Theory of Value, Yale University Press, 1959
- Kenneth Arrow and Frank Hahn, Competitive Equilibrium Analysis, North Holland, 1971
- Herbert E. Scarf, The Computation of Economic Equilibria, Yale University Press, 1973
- Truman Bewley, General Equilibrium Theory, Overlapping Generations Models, and Optimal Growth Theory. Harvard University Press, 2010
- Ross Starr, General Equilibrium Theory, Cambridge University Press, Cambridge University Press, 2011
- Bryan Ellickson, Competitive Equilibrium: Theory and Applications, Cambridge University Press, 1994
- Michael Magill and Martine Quinzii, Incomplete Markets, Cambridge University Press, 1996
- Andreu Mas-Colell, The Theory of General Equilibrium, A Differentiable Approach. Econometric Society Monographs, 1985
- John Campbell, Asset Pricing, Princeton University Press, 2017
- Darrell Duffie, Asset Pricing Theory, Princeton University Press, 2001
- John Cochrane, Financial Decisions and Markets: A Course in Asset Pricing, Princeton University Press, 2005
- Jean-Pascal Benassy, The Macroeconomics of Imperfect Competition and Nonclearing Markets, 2005
- Oliver Hart, Firms, Contracts, and Financial Structure, Oxford University Press, 1995