

API-101 (B)-(D)
Markets and Market Failure

Section B— George Borjas:	Mondays and Wednesdays, 10:10-11:30, L230
Section C— Pınar Doğan:	Mondays and Wednesdays, 10:10-11:30, L280
Section D— Pınar Doğan:	Mondays and Wednesdays, 11:40-1:00, L130

Review Sessions:	(1) Syon Bhanot	Fridays, 10:10-11:30, Land
	(2) Syon Bhanot	Fridays, 11:40-1:00, Land
	(3) Angela Fonseca Galvis	Fridays, 1:10-2:30, L140

<u>Faculty Information:</u>	<u>Borjas</u>	<u>Doğan</u>
Office	Littauer 304	Littauer 215
Telephone	617-495-1393	617-496-6757
Office Hours:	MW 8:30-9:30, and by appointment	Wednesday 1:15- 2:45, and by appointment
Faculty Assistant:	Karen Armstrong-Menard 617-496-7388 Littauer 307A	Sarah Doyle 617-495-5994 Littauer 207

<u>Course Head:</u>	George Borjas
<u>Faculty Assistant Head:</u>	Karen Armstrong-Menard

Overview

This course applies microeconomic reasoning to public issues, policies and programs. It considers economic incentives and organizations; models of economic behavior; the operation of markets; the price system and how it works; the consequences of market failure and interventions in markets; and policy objectives and instruments. *All sections cover a common set of core topics and the problem sets, midterms, and finals will be identical and graded jointly across all sections.*

Requirements

The formal course requirements are: completion of nine problem sets, a midterm examination, and a final examination. The problem sets will count for 10 percent of the final grade, the midterm will count for 40 percent, and the final for 50 percent. The examinations will be “in-class”; books and notes cannot be consulted during examinations. Note that the midterm will be held on **Friday, October 26**, from 10:10 to 11:30 AM *for all sections*. The final exam will be held on **Wednesday, December 12** from 9 AM to 12 PM *for all sections*. The final exam will be cumulative. Please check your calendars as soon as possible and avoid any scheduling conflicts for the midterm and the final. We do not schedule makeup exams except for students with documented dire emergencies.

A problem set will be assigned (and due) almost every week. They will give you hands-on experience with the techniques and concepts taught in the course. It will be extremely difficult to perform well in the midterm and final unless you devote time (about 6 to 8 hours per week) to working out these problems. The problem sets will be graded on the check-plus/check/check-minus basis. Each problem set will count for one point of the final grade (for a total of 9 points plus a freebie point that we generously allot to all students). Problem sets are due at the beginning of class on the due date. If a problem set is not turned in by this time, it is considered late and there is no credit for late assignments. Class participation is strongly encouraged, but will not be graded.

Small groups of students (no more than 4) are **STRONGLY** encouraged to work together on the problem sets. Problem solutions *must* be written independently by each of the students in the small group, and *must* indicate the name of the students in the group. Answer sheets will be posted on the class website shortly after each problem set is turned in.

There are three weekly review sessions conducted by two Teaching Fellows (TFs). Since all lectures cover the same material, you are welcome to attend any review session that you find works for you.

Readings

The textbook for this course is *Microeconomics*, Seventh Edition, by Robert S. Pindyck and Daniel L. Rubinfeld (Prentice-Hall, 2009), hereafter referred to as P&R. Be aware, however, that the course is only loosely linked to this book and you are encouraged to use other textbooks if this one does not meet your needs. The book is on reserve at the HKS library and can be purchased at the Coop.

There is a newer edition of the textbook in the market, but there is a strong possibility that we may be changing textbooks in the next year or so. We opted to use the older edition this year so that current students would not be stuck with their used textbooks if API-101 uses a different textbook in the future.

Many other standard microeconomic textbooks (as well as older editions of Pindyck and Rubinfeld) cover the same material. Students are encouraged to peruse through other textbooks to see if the material is covered or explained in ways that is more to their liking (use the index to the book if you are looking for a particular concept). Some of these alternative textbooks (on reserve at the HKS Library) are:

- E. and J. Browning, *Microeconomic Theory and Applications* (Harper Collins).
- S. E. Landsburg, *Price Theory and Applications* (Dryden Press).
- E. Mansfield, *Microeconomics: Theory and Applications* (Norton).
- Nicholson, *Intermediate Microeconomics and Its Applications* (Dryden Press).
- P. Trivedi, *Applied Microeconomics for Public Policy Makers* (International Management Publishers).
- H. Varian, *Intermediate Microeconomics: A Modern Approach* (Norton).

Some books provide a more engaging description of the economic way of thinking. Students might wish to complement the textbook and classroom presentations by looking at this material. These books include:

- David Friedman, *Hidden Order: The Economics of Everyday Life* (Harper, 1996).
- Charles Wheelan, *Naked Economics: Undressing the Dismal Science* (Norton, 2003).
- Steven D. Levitt and Stephen J. Dubner, *Freakonomics* (Morrow, 2005).

COURSE OUTLINE AND READINGS**I. Introduction (Classes 1-4)**

1. The basics of supply and demand. Market equilibrium.
P&R, Chapters 1 and 2.
2. Determinants of supply and demand. Elasticities.
P&R, Chapters 1 and 2.
3. Supply and demand in action.
P&R, Chapters 1 and 2.
4. Policy application: Minimum wages and rent control
P&R, Chapters 1 and 2.

II. Theory of the Consumer (Classes 5-8)

5. Indifference curves; budget lines; optimality conditions.
P&R, Chapter 3, pp. 67-100.
6. The law of demand; income and substitution effects; market demand.
P&R, Chapter 4, pp. 111-136; students with a strong mathematical background are encouraged to also read pp. 149-157..
7. Policy applications: Vouchers versus subsidies
8. Policy applications: Taxes, lump sum transfers, kinked budget lines, intertemporal choice.

III. Theory of the Firm (Classes 9-10)

9. Production theory
P&R, Chapter 6; Chapter 7, pp. 221-251.
10. Profit maximization and competitive supply
P&R, Chapter 8.

IV. Competitive Equilibrium Reexamined (Classes 11-14)

11. Perfect competition and efficiency; consumer surplus and producer surplus
P&R, Chapter 9.
12. Trade
P&R, Chapter 9.
13. Price supports; production quotas
P&R, Chapter 9.
14. Taxes, subsidies, price controls revisited
P&R, Chapter 9.

Midterm

V. Market Failure: The Lack of Competition or Information (Classes 16-20)

15. Introduction to market failure. Monopoly.
P&R, Chapter 10, pp. 349-376, 381-387.
16. Price discrimination and regulation.
P&R, Chapter 11, pp. 391-413.
17. Oligopoly; Cournot model.
P&R, Chapter 12. Students interested in game theory may also want to read Chapter 13.
18. Prisoner's dilemma; basics of game theory.
P&R, Chapter 12.
19. Asymmetric information: lemons and signaling.
P&R, Chapter 17, pp. 617-635.

VI. Market Failure: Externalities and Public Goods (Classes 21-24)

20. Externalities.
P&R, Chapter 18, pp. 645-676.
21. Applications of externalities; pollution control.
22. Public goods and the commons problem.
P&R, Chapter 18, pp. 676-682.
23. More on asymmetric information/public goods
24. Review

API-101 Sections B, C, and D
Schedule of Lectures and Assignments

Class	Date	Topic of Discussion	Assignment due
1	Fri., Sept. 7	Introduction	
2	Mon., Sept. 10	Basics of supply and demand	
3	Wed., Sept. 12	Supply and demand in action: taxes, price controls	
4	Mon., Sept. 17	Introduction to welfare analysis	Set 1
5	Wed., Sept. 19	Indifference curves; budget lines; optimality conditions	
6	Mon., Sept. 24	The law of demand; market demand	Set 2
7	Wed., Sept. 26	Policy applications; vouchers, income subsidies	
8	Mon., Oct. 1	Policy applications, continued	Set 3
9	Wed., Oct. 3	Production theory	
	Mon, Oct. 8	No class—Columbus Day	
10	Wed., Oct. 10	Profit maximization and competitive supply	Set 4
11	Mon., Oct. 15	Perfect competition and efficiency; consumer surplus and producer surplus	Set 5
12	Wed., Oct. 17	International trade	
13	Mon., Oct. 22	Price controls; price supports; production quotas;	Set 6
14	Wed., Oct. 24	Taxes, subsidies, price controls revisited	
	Fri., Oct. 26	MIDTERM EXAM for ALL sections, 10:10 - 11:30 am (Starr)	
15	Mon., Oct. 29	Introduction to market failure: monopoly	
16	Wed., Oct. 31	Price discrimination and regulation	
17	Mon., Nov. 5	Oligopoly; Cournot model	Set 7
18	Wed., Nov. 7	Prisoner's dilemma; basics of game theory	
	Mon., Nov. 12	No class—Veterans' Day	
19	Wed., Nov.14	Asymmetric information: lemons and signaling; moral hazard	
20	Mon., Nov. 19	Externalities	Set 8
	Wed., Nov. 21	No class—Thanksgiving recess	
21	Mon. Nov. 26	Applications of externalities; pollution control	
22	Wed., Nov. 28	Public goods and the commons problem.	
23	Mon., Dec. 3	More on asymmetric information/public goods	Set 9
24	Wed., Dec. 5	Review	
	Wed., Dec. 12	FINAL EXAM FOR ALL SECTIONS, 9 AM - 12 pm	

Note: Problem sets will be handed out a week before and returned to the student a week after they are due.