Harvard Kennedy School Fall 2014

API-101 Sections A, B &D
Markets and Market Failure

Section A — Anh Tran:		Mondays and Wednesdays, 1:10-2:30, L230
Section B — Janina Matuszeski:		Mondays and Wednesdays, 1:10-2:30, Land
Section D — George Borjas:		Mondays and Wednesdays, 1:10-2:30, L130
Review Sessions:	(A) Juan Espinosa	Fridays, 1:10-2:30, Land
	(B) Akshar Saxena	Fridays, 10:10-11:30, Land
	(D) Marek Hlavac	Fridays, 11:40-1:00, Land

Faculty Information:	Tran	Matuszeski	Borjas
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Office Hours:	Mon 2:30-3:30 Wed 2:30-3:30	Tues 11:30-1, Wed 2:30-4, and Fri by appointment	Mon 8:30-9:30 Wed 8:30-9:30
Faculty Assistant:	Jessica De Simone Rubenstein 110-A 617-495-1415	Sarah McLain Ash 217-A 617-495-8480	Sarah Meléndez Littauer 211-A 617-495-9455

Course Head:	Janina Matuszeski
Faculty Assistant Head:	Sarah McLain – sarah_mclain@hks.harvard.edu (email preferred)
Course Assistants:	(A) Gayatri Shetty, Leena Scaria
	(B) Selcuk Dag, Kwaku Abrokwah
	(D) Rachel Loh, Laurence O'Hara

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 eight 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 **Wednesday, October 22**, from 1:10 to 2:30 PM ***for all sections***. The final exam will be held on **Wednesday, December 10** 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 **WILL NOT** schedule makeup exams except for students with documented dire emergencies (e.g., you are admitted to a hospital).

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 8 points plus two freebie points 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. However, problem solutions *must* be written independently by ***EACH*** of the students in your small group. This is to ensure that what you turn in reflects your own understanding of how to do the problems. In addition, you *must* indicate the name of the students in your group at the top of your solutions. 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 three Teaching Fellows (TFs). Since all lectures cover the same material, you are welcome to attend any review session that you find works for you.

The letter grade that will appear on your transcript will be determined by the sum of the midterm, final, and problem set numerical grades (minus any adjustments; see section below on tardiness). We will rank all students across all sections from highest to lowest grade, and use the (more generous) Dean's recommended grade curve to determine the letter grade. The curve is as follows: 15% A's, 25% A-, 35% B+, 20% B, and 5% B- or less.

Across this course, you are expected to abide by the University policies on academic honesty and integrity as given in the Student Handbook. Violations of these policies will not be tolerated and are subject to severe sanctions up to and including expulsion from the university.

A Z Section of this course is available which uses calculus. You may switch into that course up until October 24, 2014. After October 24, you may not switch into or out of the Z section. To switch sections, please email both Joe Solomon (Joseph_Solomon@hks.harvard.edu) and Sarah McLain (sarah_mclain@hks.harvard.edu), with the sections you are switching between and the date you will first attend the new section. You may only switch between your assigned (A, B or D) section and the Z section. You may NOT switch among the A, B and D sections. You may "try out" the other section for one class without sending this email; simply attend that section for one class. If you do switch, grades will transfer from one section to the other. Problem set grades will transfer fully. If you switch after the midterm, your midterm in your old section will count only 20% with the remaining 20% weight being transferred to the final exam. We encourage students to try out the Z section if they think it might be a good fit.

Class Logistics:

1. Our past experience suggests that student use of electronic devices can be very disruptive to the flow of the class (real world example from the past: a student texting while sitting in the front row). As a result, no mobile phones, tablets, PDAs, or laptops may be used in class. We will, of course, make whatever exceptions are necessary if there is a documented need. Please have the relevant administrator contact the instructor if you fall in this category.

2. We have also found that tardiness is extremely disruptive. Course assistants will be instructed to write down the names of students who enter the classroom after 1:15 pm. You will receive an email each time that a CA has entered your name in the tardy list, so that there is no confusion regarding this issue later in the semester. There will be a reduction of 4 points from the total course grade per late entry. (In the language of API-101, we are imposing a Pigou tax on those who impart a negative externality on the rest of the class).

Readings
The textbook for this course is *Microeconomics*, Eighth Edition, by Robert S. Pindyck and Daniel L. Rubinfeld (Prentice-Hall, 2012), 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.

COURSE OUTLINE AND READINGS

I. Introduction (Classes 1-3)

1. Introduction; supply and demand in action.
   P&R, Chapters 1 and 2.

2. Taxes.
   P&R, Chapters 1 and 2.

3. Minimum wages and rent control.
   P&R, Chapters 1 and 2.

II. Theory of the Consumer (Classes 4-7)

4. Indifference curves; budget lines; optimality conditions.
   P&R, Chapter 3, pp. 67-100.

5. 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.
   - Section B may have a 20 minute in-class quiz this day.

6. Policy applications: Vouchers versus subsidies

7. Policy applications: Taxes, lump sum transfers, kinked budget lines.

III. Theory of the Firm (Classes 8-9)

8. Production theory
   P&R, Chapter 6; Chapter 7, pp. 229-258.

9. Profit maximization and competitive supply
   P&R, Chapter 8.

IV. Competitive Equilibrium Reexamined (Classes 10-13)

10. Perfect completion and efficiency
    P&R, Chapter 9.

11. Trade

P&R, Chapter 9.

12. Price supports; production quotas
    P&R, Chapter 9.

13. Taxes, subsidies, price controls revisited; midterm review
    P&R, Chapter 9.
    Topics: Taxes, DWL and Redistribution; Revisiting Subsidies; Taxes versus Subsidies; Midterm Review

14. **Midterm, Wednesday, October 22**

V. Market Failure: The Lack of Competition or Information (Classes 15-19)

15. Introduction to market failure. Monopoly.
    P&R, Chapter 10, pp. 357-385, 389-392.

16. Price discrimination and monopoly regulation.
    P&R, Chapter 11, pp. 399-419.

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. 631-651.

20. Additional topics in imperfect competition.

VI. Market Failure: Externalities and Public Goods (Classes 20-21)

21. Externalities.
    P&R, Chapter 18, pp. 661-690.

22. Applications of externalities; pollution control.

VII. Applications (Classes 22-24)

23. The labor-leisure model.

24. Labor-leisure applications

25. Review.

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

Class	Date	Topic of Discussion	Assignment due
1	Fri., Sept. 5	Introduction	
2	Mon., Sept. 8	Taxes	
3	Wed., Sept. 10	Minimum wages and rent control	
4	Mon., Sept. 15	Indifference curves; budget lines; optimality conditions	Set 1
5	Wed., Sept. 17	The law of demand; market demand	
6	Mon., Sept. 22	Policy applications; vouchers, income subsidies	Set 2
7	Wed., Sept. 24	Policy applications, taxes, lump sum transfers	
8	Mon., Sept. 29	Production theory	Set 3
9	Wed., Oct. 1	Profit maximization and competitive supply	
10	Mon., Oct. 6	Perfect competition and efficiency	Set 4
11	Wed., Oct. 8	Trade	
	Mon, Oct. 13	No class—Columbus Day	
12	Wed., Oct. 15	Price supports; production quotas	
13	Mon., Oct. 20	Taxes, subsidies, price controls revisited	Set 5
14	Wed., Oct. 22	MIDTERM EXAM for ALL sections	
15	Mon., Oct. 27	Introduction to market failure: monopoly	
16	Wed., Oct. 29	Price discrimination and monopoly regulation	
17	Mon., Nov. 3	Oligopoly; Cournot model	Set 6
18	Wed., Nov. 5	Prisoner's dilemma; basics of game theory	
19	Mon., Nov. 10	Additional topics in imperfect competition	
20	Wed., Nov. 12	Asymmetric information: lemons and signaling	
21	Mon., Nov. 17	Externalities	
22	Wed., Nov. 19	Applications of externalities; pollution control	Set 7
23	Mon., Nov. 24	The labor-leisure model	
	Wed., Nov. 26	No class—Thanksgiving recess	
24	Mon., Dec. 1	Labor-leisure applications	
25	Wed., Dec. 3	Review	Set 8
	Wed., Dec. 10	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.