

TENTATIVE DRAFT, SUBJECT TO CHANGE.



## **Firms and Markets**

**Wednesdays, 6-9 PM**  
Spring 2010

Professor Thomas Pugel

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This course provides an intensive overview of the economic analysis of firms, industries, and markets. The overriding general constraint is the scarcity of resources. We examine the rationales for decisions by individual buyers and sellers, as well as how these decisions are aggregated through markets. Among other things, we explore the forms that competition can take, the role of industry structure, and the influences of government policies.

The course is intended to provide the participants with tools and conceptual frameworks that they can use to better understand and analyze business decision-making and the market and government-policy environment within which businesses operate. In addition, the course develops analytical tools and logic that are useful in the study of finance, strategy, marketing, and other business areas.

Some of the key concepts we will introduce include opportunity cost (which costs matter), economic incentives, optimizing within constraints imposed by scarcity, marginal analysis, strategic behavior (how to predict and respond to your rivals' decisions), market efficiency (what does it mean for a market to work really well), asymmetric information (what happens when others know something you do not), and externalities (spillover cost or benefits, beyond direct market exchange).

## Required Reading

Most of the required reading is in the textbook for the course. The standard textbook is the seventh edition of Baye (and all references to Baye in the standard sections “Required Preparation” refer to this seventh edition):

*Managerial Economics & Business Strategy, Seventh Edition* by Michael R. Baye  
(McGraw-Hill Irwin, 2010).

(It is also acceptable to use the sixth edition of Baye. The last two pages of the syllabus show the relevant information for the Baye assignments for the required preparation if you are using the sixth edition.)

Excerpts from several other books are also assigned. Students do not need to buy any of this other material. Hard copies of the excerpts will be distributed in class. (Note: These excerpts will only be available in hard copy—I will not post them on the Blackboard site.)

I strongly suggest that you read (perhaps quickly) the assigned reading before the class discussion of the topic. In the class discussion I will usually cover the concepts and issues that are most important and most challenging, *reinforcing* and *extending* what is in the required reading. I suggest that after the class session you review the assigned reading to solidify your understanding.

It is highly recommended to keep up with current economic developments, both for class purposes and for your own benefit. You can do this by reading the relevant articles in a good newspaper (e.g., *Financial Times*, *Wall Street Journal*, *New York Times*) or weekly magazine (e.g., *Economist*). You are encouraged to bring up relevant current events and issues for discussion in class, as time permits.

## Problem Sets and Slides Used in Class

It is important that you develop the ability to *use and apply* the concepts and tools developed in the course. The best way to do this is to *practice actively outside of the class sessions*.

- Several problem sets will be distributed, with suggested answers attached. The problem sets are for your use in your efforts to master the material; answers need not be turned in.
- I will post examples of exam questions along with suggested answers, on the Blackboard web site.
- Questions and problems in the textbook are another source of practice items. *If an entire chapter is assigned as required reading, then all questions and problems at the end of this chapter are relevant.* If only a part of a chapter is assigned as required reading, then the course outline indicates the relevant questions and problems.

One way to get active with this material is to work with a few other people in the class (as a study group) to discuss the problem sets, the sample exam questions, and/or the text questions.

Hard copies of the slides used in the class sessions will be distributed at the beginning of the discussion of each topic.

## Course Requirements and Evaluation

Evaluation is based on the following items, with weights noted.

Mid-term exam, session 6	32%
Final examination, session 12	39%
In-class group presentation	19%
Contributions to class discussion	10%

Final grades will follow the School's guidelines for core courses: no more than 35% of the class will receive an A or A-. These guidelines were instituted to address student concerns that different sections of a course might be graded by different standards.

## Exams

The midterm exam covers material listed in Sessions 1, 2, 3, and 4 of this syllabus. The final exam covers material in Sessions 5 through 11 (assuming that you have already mastered the material in Sessions 1 through 4).

For the midterm exam, each participant is permitted to bring one sheet of paper (8½ by 11 inches) with notes on both sides, to refer to during the exam. For the final exam, each participant is permitted to bring two sheets of paper (8½ by 11 inches) with notes on both sides, to refer to during the exam.

For each exam, you may also use a calculator. But, you may not use any device that is capable of wireless transmission.

Otherwise, the exams are closed-book.

You may find the exams difficult. My goal in creating an exam is to provide you with a substantial *challenge*. I want to see how far you can go with the material. The best answers to exam questions often are based on the abilities:

- to apply concepts and tools
- to use judgment
- to develop new insights about problems that you have not seen before the exam
- to make connections to find the most relevant concepts and tools to use in your answers
- to answer the question that is asked, not some other question

## **In-Class Group Presentation**

Students will form into groups of four, five, or (possibly) six students, usually based on existing study groups.

Each group will make a presentation to the class from one of the topics in a list that will be distributed at the first class session. You should view your presentation as an opportunity to hone your research and presentation skills, to apply concepts from this course (and possibly from other courses), to attack a real issue, and to show off your creativity.

Presentations will last no longer than 15 minutes. In addition, after the presentation, there will be about 5 minutes for the group to answer questions from the class. Evaluation of the presentation will be based on three criteria:

- Informativeness
- Analysis and Interpretation
- Style

## **Class Participation**

Class participation will be evaluated on the basis of contributions to class discussions. In the evaluation, quality is more important than quantity. In addition, the evaluation of class participation could be affected adversely by lack of attendance or creating negative classroom externalities.

## **Responsibilities**

We are all adults.

- As the teacher I have the *responsibility* to organize and present the material and to facilitate your learning.
- As a student you have *responsibility* for your own learning.
- You are responsible for complying with Stern's Honor Code. The Honor Code requires each student to act with integrity in all academic activities and to hold his or her peers to the same standard. No lying, cheating, or plagiarism of published work, work posted on the web, or work done by other students will be tolerated. Any suspected case will be referred to the School's student judiciary committee.
- Actions that have negative effects on others will not be tolerated in the classroom. If you must arrive late or leave early, you must do so as quietly as possible. No cell phones should be audible during class sessions. If you want to use a laptop during class sessions, please take a seat in one of the back two rows.

## **Blackboard Web Site**

I will maintain a web site for the course using Blackboard. The web site will include announcements, downloadable files with nearly all class handouts, and links to videos of the class sessions, as well as sample exam questions and suggested answers.

## **Teaching Assistant**

Mr. John (JR) Caughey will be the teaching fellow for this section of the course. He will usually be available to talk with you briefly in the classroom during the several minutes before the class session begins, during the mid-session break, and during the several minutes after the class session ends.

You can also contact him (best by e-mail at [jrc412@stern.nyu.edu](mailto:jrc412@stern.nyu.edu)) with questions or to arrange a mutually agreeable time to meet. He can also be reached on his work phone (914-249-5915 – preferable for business hours) or by cell phone (516-660-0066 for nights and weekends).

## **Contacting Professor Pugel**

My office hours for Spring 2010 at Westchester are Wednesdays, 4:00-5:30 PM. I will also usually be available for quick questions in the classroom during the several minutes after a class session ends, as well as during the brief break in the middle of the class session.

My office telephone at Washington Square is 212-998-0918. My fax is 212-995-4212. My e-mail is [tpugel@stern.nyu.edu](mailto:tpugel@stern.nyu.edu) I usually respond quickly to e-mail messages, so this is an excellent way to contact me.

## **SESSION 1: INTRODUCTION AND DEMAND ANALYSIS**

February 10

### Topical Outline

Introduction

Market demand

Determinants of quantity demanded by household consumers [or by user firms]

Product price

Buyer income [or quantity of user-firm output]

Substitutes and complements

Preferences and the role of advertising [or technologies available to user firms]

Responsiveness: elasticities

Consumer surplus

### Required Preparation

Baye, chapter 1.

Baye, pp. 36-46. [Relevant Problems on pp. 66-72 are 1, 4, and 5.]

Baye, pp. 74-95. [Relevant Problems on pp. 110-116 are 1, 2, 3, 4, 5, 6, 11, 13, 14, 15, 16, and 21.]

## **SESSION 2: COST ANALYSIS; PROCURING INPUTS; PRINCIPAL-AGENT ISSUES**

February 17

### Topical Outline

Opportunity cost: explicit and implicit

Generic cost analysis: short-run

Total, fixed, and variable costs

Average and marginal costs

Generic cost analysis: long run

Economies of scale

Economies of scope

Learning economies

The firm: acquiring and using resource inputs

Transaction costs

Specialized investments and asset specificity

Opportunism

Spot exchange, long-term contract, vertical integration

## Principal-agent problems

- Ideal resolution and why it is unlikely
- Partial resolution

### Required Preparation

Baye, pp. 156-157 and 175-190 (through the top two lines of p. 190; also, omit the box “Fringe Benefits and Input Substitution” at the top of p. 176). [Relevant Problems on pp. 191-198 are 4, 6, 7, 8, 16, 17, 18, and 22.]

Baye, chapter 6 (excluding Appendix).

## **SESSION 3: MONOPOLY: USING SELLER’S MARKET POWER**

February 24

### Topical Outline

#### Industry analysis

Monopoly: structural conditions

Pricing for profit maximization

- Uniform price to all buyers

- Perfect (or first-degree) price discrimination

- Group or segment (or third-degree) discrimination

- Indirect segment discrimination

- Two-part pricing

- Block pricing

Advertising for profit maximization

### Required Preparation

Baye, chapter 7.

Baye, pp. 277-291 and 300-302. [Relevant Problems on pp. 303-310 are 4, 8, 14, 15, 18, 19, 21, and 23.]

Baye, pp. 395-400, 402-417 (stop at the sub-section on “Transfer Pricing”), and 423-424 (Answering the Headline). [Relevant Problems on pp. 425-431 are 2, 3, 4, 5, 6, 7, 10, 11, 12, 13, 14, 15, 16, 18, and 20.]

## **SESSION 4: COMPETITIVE INDUSTRY: NO MARKET POWER**

March 3

### Topical Outline

Perfect competition: structural conditions

Firm profit maximization

Individual firm supply curve

Short run market supply curve

Responsiveness: price elasticity of supply

Producer surplus

Demand and supply

    Competitive market equilibrium: short run

    Long-run competitive market equilibrium

    Dynamics: supply shift, demand shift; short run and long run

Product differentiation and monopolistic competition

### Required Preparation

Baye, pp. 265-277. [Relevant Problems on pp. 303-310 are 1, 2, 11, 12, and 20.]

Baye, pp. 35 (Headline), 46-54, and 60-65. [Relevant Problems on pp. 66-72 are 3, 9, 11, 12, 13, 14, 15, 17, 19, and 20.]

Baye, pp. 264 (Headline), 293-300 (omit the paragraph on p. 298 that begins “As in the case of monopoly...” and ends “...concern with profits.”), and 302 (Answering the Headline). [Relevant Problems on pp. 303-310 are 3, 5, 7, 13, and 16.]

## **SESSION 5: OLIGOPOLY AND STRATEGY: COMPETITION AMONG A SMALL NUMBER OF FIRMS**

March 10

### Topical Outline

Firm decision-making: strategy

Game theory

Defending sellers' market power: barriers to entry

    Scale economies

    Absolute cost advantages

    Aspects of product differentiation

### Required Preparation

Richard E. Caves, *American Industry: Structure, Conduct, Performance*, seventh edition (Prentice Hall, 1992), pp. 22-30.

Baye, pp. 314-316.

Baye, chapter 10.

### **SESSION 6: EXAM; OLIGOPOLY (continued)**

March 24

First 95 minutes: Midterm exam (covers material in Sessions 1, 2, 3, and 4)

### Topical Outline

Oligopoly pricing

    Rivalry: prisoners' dilemma

    Coordination and repetition

    Limit-pricing, predatory pricing, penetration pricing

Oligopoly: non-price decisions

    Rivalry: first-mover advantage

### Required Preparation

Baye, pp. 419-423.

Baye, chapter 13 (omit pp. 486-487, sub-section "Strategies Involving Marginal Costs," and omit question 5 on p. 502).

### **SESSION 7: ECONOMIC EFFICIENCY; MARKETS MAY FAIL: MONOPOLY AND EXTERNALITIES**

March 31

### Topical Outline

Economic efficiency

Monopoly, competition laws, and regulation

Externalities

### Required Preparation

Baye, pp. 291-293. [Relevant Problem on pp. 303-310 is 6.]

Baye, pp. 507-518, and 536-537 (Answering Headline). [Relevant Problems on pp. 538-544 are 1, 2, 5, 8, 11, 12, 13, and 23.]

## **SESSION 8: MARKETS MAY FAIL: EXTERNALITIES, PUBLIC GOODS, AND ASYMMETRIC INFORMATION**

April 7

### Topical Outline

Resolving externalities

    Internalize by expansion, acquisition, or merger

    Joint private action

    Government policies

Public goods

Asymmetric information, adverse selection, and moral hazard

Signaling, screening, and regulation

### Required Preparation

Ivan Png and Dale Lehman, *Managerial Economics*, third edition (Blackwell Publishing, 2007), excerpts from pp. 325-335.

Jeffrey M. Perloff, *Microeconomics*, fifth edition (Pearson Addison Wesley, 2009), pp. 606-623.

Baye, pp. 448-454. [Relevant Problems on pp. 466-472 are 5, 8, 10, 13, 15, 17, 18, 22, and 23.]

Baye, pp. 522-532. [Relevant Problems on pp. 538-544 are 4, 5, 9, 10, 14, 16, 17, and 21.]

## **SESSION 9: GOVERNMENT POLICIES CAN DESTROY EFFICIENCY**

April 14

### Topical Outline

Government policies when there are no market failures

The effects of taxation: excise tax

Price floor

Price support with government purchase

Price ceiling

### Required Preparation

Baye, pp. 48-49 (sub-section on taxes) and 54-60. [Relevant Problems on pp. 66-72 are 2, 6, 7, 8, 10, 16, 18, 22, and 23.]

## **SESSION 10: INTERNATIONAL TRADE; GROUP PRESENTATIONS**

April 21

The early part of this session will be used to examine international trade. Then, the remainder of the session will be devoted to in-class group presentations.

### Topical Outline

International trade: gains from trade, winners and losers

Government policies that limit imports: effects of a tariff

World Trade Organization

Several in-class group presentations.

### Required Preparation

Thomas A. Pugel, *International Economics*, fourteenth edition (Irwin, McGraw-Hill, 2009), chapter 8.

## **SESSION 11: GROUP PRESENTATIONS**

April 28

Most of this session will be devoted to in-class group presentations.

## **SESSION 12: FINAL EXAM**

May 5

First 40 minutes: Optional review session. (The only thing that I will do is answer questions that you raise about material from the course.)

Beginning at 6:45 PM: Final exam (focuses on material in Sessions 5 through 11; assuming that you know and can use all material from the first part of the course).

**Syllabus Appendix**  
**Baye assignments for the Required Preparation, if you are using the Sixth Edition**

**SESSION 1: INTRODUCTION AND DEMAND ANALYSIS**

Baye, chapter 1.

Baye, pp. 36-46. [Relevant Problems on pp. 67-72 are 1, 4, and 5.]

Baye, pp. 74-95. [Relevant Problems on pp. 110-116 are 1, 2, 3, 4, 5, 6, 9, 11, 12, 13, 14, and 19.]

**SESSION 2: COST ANALYSIS; PROCURING INPUTS; PRINCIPAL-AGENT ISSUES**

Baye, pp. 157-158 and 177-191 (omit the box “Fringe Benefits and Input Substitution” at the top of p. 178). [Relevant Problems on pp. 192-199 are 4, 6, 7, 8, 14, 15, 16, and 20.]

Baye, chapter 6 (excluding Appendix).

**SESSION 3: MONOPOLY: USING SELLER’S MARKET POWER**

Baye, chapter 7.

Baye, pp. 278-292 and 301-303. [Relevant Problems on pp. 304-311 are 4, 8, 12, 13, 16, 17, 19, and 21.]

Baye, pp. 397-401, 404-419 (stop at the sub-section on “Transfer Pricing”), and 426 (Answering the Headline). [Relevant Problems on pp. 427-433 are 2, 3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 14, 16, and 18.]

**SESSION 4: COMPETITIVE INDUSTRY: NO MARKET POWER**

Baye, pp. 266-278. [Relevant Problems on pp. 304-311 are 1, 2, 9, 10, and 18.]

Baye, pp. 35 (Headline), 46-54, and 60-65. [Relevant Problems on pp. 67-72 are 3, 9, 10, 11, 12, 13, 15, 17, and 18.]

Baye, pp. 265 (Headline), 294-301 (omit the paragraph on p. 299 that begins “As in the case of monopoly...” and ends “...concern with profits.”), and 303 (Answering the Headline). [Relevant Problems on pp. 304-311 are 3, 5, 7, 11, and 14.]

## **SESSION 5: OLIGOPOLY AND STRATEGY**

Baye, pp. 316-318.

Baye, chapter 10.

## **SESSION 6: EXAM; OLIGOPOLY (continued)**

Baye, pp. 422-426.

Baye, chapter 13 (omit pp. 488-489, sub-section “Strategies Involving Marginal Costs,” and omit question 5 on p. 504).

## **SESSION 7: ECONOMIC EFFICIENCY; MARKETS MAY FAIL**

Baye, pp. 292-294. [Relevant Problem on pp. 304-311 is 6.]

Baye, pp. 509-520, and 539 (Answering Headline). [Relevant Problems on pp. 540-545 are 1, 2, 5, 8, 9, 10, 11, and 21.]

## **SESSION 8: MARKETS MAY FAIL**

Baye, pp. 450-456. [Relevant Problems on pp. 468-473 are 5, 8, 11, 13, 15, 16, 20, and 21.]

Baye, pp. 524-534. [Relevant Problems on pp. 540-545 are 4, 5, 12, 14, 15, and 19.]

## **SESSION 9: GOVERNMENT POLICIES CAN DESTROY EFFICIENCY**

Baye, pp. 48-49 (sub-section on taxes) and 54-60. [Relevant Problems on pp. 67-72 are 2, 6, 7, 8, 14, 16, 20, and 21.]