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 strategy, finance, 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), externalities (spillover costs or benefits, beyond standard market exchange), and asymmetric information (what happens when others know something you do not).
Required Reading

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


(It is also acceptable to use the seventh or sixth edition of Baye [then without Prince as a co-author]. The last four pages of the syllabus show the relevant information for the Baye assignments for the required reading if you are using the seventh or 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 NYU Classes course web site.)

I suggest that you read (perhaps quickly) the assigned reading before the class discussion of that 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 magazine (e.g., *Economist*).

Problem Sets and Slides Used in Class

Our ultimate goal is that you build your 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 in-class exam questions along with suggested answers, on the NYU Classes course 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 quiz 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 examination, session 6          31%
- Final examination, session 12           39%
- In-class group presentation             20%
- 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 the first four major topics of this syllabus—Introduction and Demand Analysis, Cost Analysis, Monopoly, and Perfect Competition. The final exam covers material listed in the remaining four major topics—Oligopoly, Efficiency and Market Failure, Government Policies Can Destroy Efficiency, and International Trade (assuming that you have already mastered the material for the first four major topics of the course).

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 several students each, 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. All group members must be involved in speaking during the presentation.

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

As the instructor 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.

Furthermore, you are responsible for complying with Stern’s Code of Conduct. The Code requires each student to act with integrity in all academic activities. No cheating or plagiarism of published work, work posted on the web, or work done by other students will be tolerated. Any suspected case can be referred to the School’s 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.
Course Web Site

I will maintain a web site for the course using NYU Classes. The web site will include announcements, downloadable files with nearly all class handouts, sample exam questions and suggested answers, and links to videostreams (best efforts) of the class sessions.

Teaching Fellow

Contacting Professor Pugel

My office is Room 7-85 KMC. My office hours for Spring 2017 are Thursdays, 4:45-6:00 PM. I will also usually be available for quick questions in the classroom during the several minutes after a class session ends. And, I am available by appointment (mutually agreeable time).

My e-mail is tpugel@stern.nyu.edu. I usually respond quickly to e-mail messages, so this is an excellent way to contact me. My office telephone is 212-998-0424. My fax is 212-995-4218.
INTRODUCTION and DEMAND ANALYSIS

SESSION 1
February 7

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 Reading

Baye, chapter 1. Two things to note:

- On pp. 14-19, there is a presentation of present value. I will presume that you know what present value is and what are some of the key implications (e.g., money received further in the future is worth less today than would be the same amount of money received sooner), but I will not ask you to make detailed present value calculations. (You should know how to make these calculations, but that is for other courses.) For the Problems on pp. 27-33, the following can be omitted: 2, 4, 5, 10, 11, 12, 15, 16, 17, 18, and 20.

- The Appendix to Chapter 1 is useful to understand or review the mathematics of maximization, but such math is not essential to our course. I will teach the course mostly using graphs and verbal explanations, with some algebra, and these tools are the important ones for everyone to learn and master. It is possible to learn the material for the course using calculus-based mathematics. If calculus and algebra help you to learn the material, then please use the calculus and algebra that is provided in various places in the textbook.

Baye, pp. 38-48. [Relevant Problems on pp. 69-75 are 1, 4, and 5.]

Baye, pp. 78-99. [Relevant Problems on pp. 114-121 are 1, 2, 3, 4, 5, 6, 11, 13, 14, 15, 16, and 21.]
COST ANALYSIS

SESSION 2
February 14

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

Required Reading

Baye, pp. 164-165 (begin at “The Production Function”, and stop at the bottom of p. 165), and 183-198 (stop after the top two lines of p. 198; also, omit the box “Fringe Benefits and Input Substitution” at the top of p. 184). [Relevant Problems on pp. 200-206 are 4, 6, 7, 8, 16, 17, 18, and 22.]
MONOPOLY: USING SELLER’S MARKET POWER

SESSION 3 and Part of SESSION 4
February 21 and 28

Topical Outline

Industry analysis
Monopoly: structural conditions
Pricing for profit maximization: base case
  Uniform price to all buyers
Pricing for profit maximization: strategies that may yield greater profit
  Perfect (or first-degree) price discrimination
  Group or segment (or third-degree) price discrimination
  Indirect segment price discrimination
  Discrete schedule of declining prices (second-degree price discrimination)
  Two-part pricing
  Block pricing
Advertising for profit maximization

Required Reading

Baye, chapter 7.

Baye, pp. 287-301 (begin at “Monopoly” and stop at “Implications of Entry Barriers”), and 310-312 (stop at “Answering the Headline”). [Relevant Problems on pp. 314-321 are 4, 8, 14, 15, 18, 19, 21, and 23.]

Baye, pp. 409-414 (stop at “A Simple Pricing Rule…”), 416-431 (stop at “Transfer Pricing”), and 437-438 (section “Answering the Headline”). [Relevant Problems on pp. 439-445 are 2, 3, 4, 5, 6, 7, 10, 11, 12, 13, 14, 15, 16, 18, and 20.]
COMPETITIVE INDUSTRY: NO MARKET POWER

Part of SESSION 4 and Part of SESSION 5
February 28 and March 7

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 Reading

Baye, pp. 275-287 (begin at “Perfect Competition” and stop at “Monopoly”). [Relevant Problems on pp. 314-321 are 1, 2, 11, 12, and 20.]

Baye, pp. 37 (section “Headline”), 48-56 (begin at “Supply” and stop at “Price Restrictions…”), and 62-68 (begin at “Comparative Statics”). [Relevant Problems on pp. 69-75 are 3, 9, 11, 12, 13, 14, 15, 17, 19, and 20.]

Baye, pp. 274 (section “Headline”), 303-310 (omit the paragraph on p. 308 that begins “As in the case of monopoly…” and ends “…concern with profits.”), and 312 (section “Answering the Headline”). [Relevant Problems on pp. 314-321 are 3, 5, 7, 13, and 16.]

MIDTERM EXAM

First 100 minutes of SESSION 6
March 21
OLIGOPOLY AND STRATEGY: COMPETITION AMONG A SMALL NUMBER OF FIRMS

Part of SESSION 5, Part of SESSION 6, and Part of SESSION 7
March 7, 21, and 28

Topical Outline

Firm decision-making: strategy
Game theory
Defending sellers’ market power: barriers to entry
  Scale economies
  Absolute cost advantages
  Aspects of product differentiation
  Government policies
Oligopoly pricing
  Rivalry: prisoners’ dilemma
  Coordination and repetition
  Networks and (one version of) penetration pricing
Oligopoly: non-price decisions
  Rivalry: first-mover advantage

Required Reading


Baye, pp. 326-328 (begin at “Conditions for Oligopoly” and stop at “Profit Maximization…”).

Baye, chapter 10 (you can essentially ignore the discussion of secure strategy on p. 368, this is generally not the correct way to play a game).

Baye, pp. 434-437 (begin at “Price Matching” and stop at “Answering the Headline”).

Baye, pp. 487-488 (section “Headline”) and pp. 504-513. [Relevant Problems on pp. 515-521 are 3, 4, 6, 8, 10, 11, 14, 19, and 20.]
ECONOMIC EFFICIENCY and MARKETS MAY FAIL

Part of SESSION 7 and SESSION 8
March 28 and April 4

Topical Outline

Economic efficiency
Monopoly, competition laws, and regulation
Externalities
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 Reading

Baye, pp. 301-303 (sub-section “Implications of Entry Barriers”). [Relevant Problem on pp. 314-321 is 6.]

Baye, pp. 523-534, and 552 (section “Answering Headline”). [Relevant Problems on pp. 554-560 are 1, 2, 5, 8, 11, 12, 13, and 23.]


Baye, pp. 462-468 (stop at “Auctions”). [Relevant Problems on pp. 480-486 are 5, 8, 10, 13, 15, 17, 18, 22, and 23.]

Baye, pp. 538-548 (stop at “Government Policy…”). [Relevant Problems on pp. 554-560 are 4, 5, 9, 10, 14, 16, 17, and 21.]
GOVERNMENT POLICIES CAN DESTROY EFFICIENCY

SESSION 9
April 11

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 Reading

Baye, pp. 50-51 (sub-section “Taxes”) and 56-62 (begin at “Price Restrictions…” and stop at “Comparative Statics”). [Relevant Problems on pp. 69-75 are 2, 6, 7, 8, 10, 16, 18, 22, and 23.]

INTERNATIONAL TRADE

Part of SESSION 10
April 18

Topical Outline

International trade: gains from trade, winners and losers
Government policies that limit imports: effects of a tariff
Quotas and other nontariff barriers
World Trade Organization

Required Reading

GROUP PRESENTATIONS

Part of SESSION 10 and SESSION 11
April 18 and 25

FINAL EXAM

SESSION 12
May 2

First 15 minutes: Optional last-minute question session. (The only thing that I will do is answer questions that you raise about material from the course.)

Beginning at 6:20 PM: Final exam
Syllabus Appendix
Baye assignments for the Required Reading, if you are using the Seventh Edition

INTRODUCTION and DEMAND ANALYSIS

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.]

COST ANALYSIS

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).

MONOPOLY: USING SELLER’S MARKET POWER

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.]

COMPETITIVE INDUSTRY: NO MARKET POWER

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.]
OLIGOPOLY AND STRATEGY

Baye, pp. 314-316.

Baye, chapter 10 (you can essentially ignore the discussion of secure strategy on p. 354, this is generally not the correct way to play a game).

Baye, pp. 420-423.

Baye, pp. 473-474 (section “Headline”) and pp. 490-499. [Relevant Problems on pp. 500-506 are 3, 4, 6, 8, 10, 11, 14, 19, and 20.]

ECONOMIC EFFICIENCY and MARKETS MAY FAIL

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.]

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.]

GOVERNMENT POLICIES CAN DESTROY EFFICIENCY

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.]
Syllabus Appendix
Baye assignments for the Required Reading, if you are using the Sixth Edition

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.]

COST ANALYSIS

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).

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.]

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.]
OLIGOPOLY AND STRATEGY

Baye, pp. 316-318.

Baye, chapter 10 (you can essentially ignore the discussion of secure strategy on p. 354, this is generally not the correct way to play a game).

Baye, pp. 422-426.

Baye, pp. 475-476 (section “Headline”) and pp. 492-501. [Relevant Problems on pp. 502-507 are 3, 4, 6, 8, 9, 12, 17, and 18.]

ECONOMIC EFFICIENCY and 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.]

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.]

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.]