



NYU | STERN

Competitive Analysis

Fall 2022
Mondays and Wednesdays
KMEC 3-120, 3:30 pm – 4:45 pm

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Office hours: Tues. 4:45 pm – 6:15 pm

Course Description

This course takes a formal approach to analyzing the way firms make production and sales decisions and interact strategically with each other in the marketplace. We begin with a study of optimal pricing policies, including versioning, bundling, and related market segmentation strategies. In the second part of the course, we apply game theory to the study of oligopoly interaction, focusing on pricing and output strategies in a dynamic setting. Finally, we analyze strategies for firm dominance, especially through the deterrence of potential competition. The list of such strategies includes capacity expansion, product proliferation, and exclusive dealing contracts. The main goal of the course is to develop the basic intuition for pricing and other forms of strategic behavior on the part of firms, both when faced with complex patterns of consumer demand and when faced with strategic competitors. Readings in the textbook will provide background and introduction to a variety of topics, many of which will be covered in class in greater depth. Occasional supplemental readings will provide additional motivation and opportunities to develop intuition.

Pre-requisites

Students are required to have taken a semester of microeconomics, specifically the knowledge of competitive markets and game theory will be assumed. Students are also expected to be comfortable with basic algebra and calculus, including systems of equations, derivatives, logarithms and NPV calculations.

Course Material

Slides: Most of the lectures will be accompanied with slides. These provide access to the core of the material we will cover. Versions of these slides will be available on the class website.

Textbook. There is one required textbook, which is Introduction to Industrial Organization, by Luis Cabral, 2nd Edition (ISBN: 0262035944). The book should be available for purchase at the NYU Bookstore and other outlets (e.g. Amazon). There is also the option of buying or renting the ebook version.

Course website

All announcements regarding the course will be made on Brightspace. Besides administrative issues, I may post clarifications on the class material. You are responsible for checking Brightspace for announcements on a regular basis (i.e., at least a couple of times a week).

Assessment

Midterm: 30%

Final: 40%

Group presentation: 15%

Class participation: 15%

Academic Integrity

Our undergraduate [Academics Pillar](#) states that ***we take pride in our well-rounded education and approach our academics with honesty and integrity.*** Indeed, integrity is critical to all that we do here at NYU Stern. As members of our community, all students agree to abide by the NYU Stern Student Code of Conduct, which includes a commitment to:

- Exercise integrity in all aspects of one's academic work including, but not limited to, the preparation and completion of exams, papers and all other course requirements by not engaging in any method or means that provides an unfair advantage.
- Clearly acknowledge the work and efforts of others when submitting written work as one's own. Ideas, data, direct quotations (which should be designated with quotation marks), paraphrasing, creative expression, or any other incorporation of the work of others should be fully referenced.
- Refrain from behaving in ways that knowingly support, assist, or in any way attempt to enable another person to engage in any violation of the Code of Conduct. Our support also includes reporting any observed violations of this Code of Conduct or other School and University policies that are deemed to adversely affect the NYU Stern community.

The Stern Code of Conduct and Judiciary Process applies to all students enrolled in Stern courses and can be found here: <https://www.stern.nyu.edu/uc/codeofconduct>. To help ensure the integrity of our learning community, prose assignments you submit to Brightspace will be submitted to Turnitin. Turnitin will compare your submission to a database of prior submissions to Turnitin, current and archived Web pages, periodicals, journals, and publications. Additionally, your document will become part of the Turnitin database.

General Conduct and Behavior

Students are also expected to maintain and abide by the highest standards of professional conduct and behavior. Please familiarize yourself with Stern's Policy in Regard to In-Class Behavior & Expectations (<http://www.stern.nyu.edu/portal-partners/current-students/undergraduate/resources-policies/academic-policies/index.htm>) and the NYU Student Conduct Policy (<https://www.nyu.edu/about/policies-guidelines-compliance/policies-and-guidelines/university-student-conduct-policy.html>).

Electronic Devices in the Classroom

Please switch off cell phones before entering the classroom. No laptops are permitted. You can use an iPad to take notes, but please make sure it lies flat.

Grading Guidelines

At NYU Stern, we strive to create courses that challenge students intellectually and that meet the Stern standards of academic excellence. To ensure fairness and clarity of grading, the Stern faculty have agreed that for elective courses the individual instructor or department is responsible for determining reasonable grading guidelines.

You are responsible for checking the exam dates and avoiding any conflict with other commitments. Exams will not be re-administered on other dates. Questions about grading must be made in writing and no more than a week after the exams are returned.

Student Accessibility

If you will require academic accommodation of any kind during this course, you must notify me at the beginning of the course and provide a letter from the Moses Center for Student Accessibility (212-998-4980, mosescsa@nyu.edu) verifying your registration and outlining the accommodations they recommend. If you will need to take an exam at the Moses Center for Student Accessibility, you must submit a completed Exam Accommodations Form to them at least one week prior to the scheduled exam time to be guaranteed accommodation. For more information, visit the CSA website: <https://www.nyu.edu/students/communities-and-groups/student-accessibility.html>

Student Wellness

Our aim is for students to be as successful academically as they can, and to help them overcome any impediments to that. Bookmark the NYU Stern Well-being Resource Hub (<https://www.stern.nyu.edu/wellbeing>) for existing services at NYU and Stern covering a wide variety of topics including financial well-being, relationship well-being, mental well-being, and more. Any student who may be struggling and believes this may affect their performance in this course is urged to contact the Moses Center for Student Accessibility (see also the Student Accessibility section of this syllabus) at 212 998 4980 to discuss academic accommodations. If mental health assistance is needed, call the NYU's 24/7 Wellness Exchange hotline 212 443-9999. Furthermore, please approach me if you feel comfortable doing so. This will enable me to provide relevant resources or referrals. There are also drop in hours and appointments. Find out more at <http://www.nyu.edu/students/health-and-wellness/counseling-services.html>

Name pronunciation and pronouns

NYU Stern students now have the ability to include their pronouns and name pronunciation in Albert. I encourage you to share your name pronunciation and preferred pronouns this way. Please utilize this link for additional information: [Pronouns & Name Pronunciation](#)

Religious Observances and Other Unique Situations

NYU Stern is committed to ensuring an equitable educational experience for all students regardless of identity or religious/cultural background. The observance of religious and cultural holidays/traditions and the recognition of unique circumstances - such as serving as a caregiver - are important aspects of this commitment. Please review all class dates at the start of the semester and review all course requirements to identify any foreseeable conflicts with exams, course assignments, projects, or other items required for participation and attendance. Please contact me within the first two weeks of the class semester to discuss any potential conflicts.

Diversity, Inclusion, and Equity

I am deeply committed to maintaining a classroom culture that respects and embraces diversity, inclusion, and equity. For more information about NYU Stern's continued efforts in this area, please visit: <https://www.stern.nyu.edu/portal-partners/diversity-inclusion>.

Course Schedule and Readings (to be completed before class)

Part I: Demand and Pricing

1. Wednesday, September 7: Introduction and overview

Reading: Cabral, Introduction to Industrial Organization, 2nd Ed., Ch. 1.

2. Monday, September 12: Demand and elasticity

Reading: Cabral, 2.1-2.2

3. Wednesday, September 14: Supply and monopoly pricing

Reading: Cabral 3.1-3.2

4. Monday, September 19: Demand estimation

Reading: Cabral 2.2-2.3

Mini-case: Monsanto's Roundup. Discussion.

5. Wednesday, September 21: Price discrimination by indicators

Reading: Cabral 6.1

6. Monday, September 26: Price discrimination by self-selection

Reading: Cabral 6.2-6.3

7. Wednesday, September 28: Pricing in practice

Mini-case: Merck and Aids. Discussion.

Part II: Static Oligopoly Analysis

8. Monday, October 3: Game Theory – static games

Reading: Cabral 7.1

9. Wednesday, October 5: Oligopoly Competition

Reading: Cabral 8.1-8.2

10. Tuesday, October 11: Product differentiation and capacity constraints

Reading: Cabral 14.2

11. Wednesday, October 12: Oligopoly models at work

Reading: Cabral 8.3-8.4

12. Monday, October 17: Midterm exam review

13. Wednesday, October 19: Midterm exam

Part III: Dynamic Oligopoly Analysis

14. Monday, October 24: Repeated interaction and collusion

Reading: Cabral 7.3, 9.1

15. Wednesday, October 26: Collusion, price wars, and public policy

Reading: Cabral 9.2-9.5

Mini-case: GE and Westinghouse

Part IV: Entry and Exit

16. Monday, October 31: Market Structure

Reading: Cabral 10

17. Wednesday, November 2: Horizontal Mergers and policy

Reading: Cabral 11.1-11.3

Mini-case: The Failed GE-Honeywell Merger. Discussion.

18. Monday, November 7: Sequential games and commitment

Reading: Cabral 7.2

19. Wednesday, November 9: Entry deterrence

Reading: Cabral 12.1

20. Monday, November 14: Market foreclosure and policy

Reading: Cabral 12.2-12.3

Mini-case: Microsoft. Discussion.

21. Wednesday, November 16: Vertical relations

Reading: Cabral 13.1

22. Monday, November 21: Vertical integration, restraints, and policy

Reading: Cabral 13.2

Mini case: AT&T and Time-Warner

23. Monday, November 28: Networks, I

Reading: Cabral 16

24. Wednesday, November 30: Networks, II

Reading: Cabral 16

25. Monday, December 5: Group presentations

26. Wednesday, December 7: Group presentations

27. Monday, December 12: Group presentations

28. Wednesday, December 14: Final Review Session

Final Exam: Tuesday, December 20, 4 pm to 5:50 pm