MANAGERIAL ECONOMICS (B6200) Syllabus, Fall 2022

Course Description

Success in business depends on the positioning of the firm and the management of its resources. Through the lens of economics, students will learn to think systematically and strategically about critical management issues concerning consumer demand, costs, pricing, market competition, and organizational incentives. This course differs from undergraduate microeconomics in its emphasis on how economic principles apply to real-world managerial decisions, with a reliance on quantitative data analyses rather than the use of calculus.

Professors

Frank Lichtenberg, frl1@gsb.columbia.edu, Office hour: M/W 12:30-1:30pm, Kravis 552 Tom Prusa, tjp2163@columbia.edu, Office hour: Wednesday 12:30-1:30pm, Kravis 571 Jonah Rockoff, jr2331@gsb.columbia.edu, Office hour: Thursday, 1:30-2:30pm, Kravis 354 Nachum Sicherman, nss8@columbia.edu, Office hour: Wednesday 12:15-1:15pm, Kravis 996

Class Locations and Schedule

Cluster:	A	В	C	D	E	F	G	Н	I
Professor:	Lichtenberg	Prusa	Rockoff	Sicherman	Prusa	Lichtenberg	Sicherman	Prusa	Sicherman
Time:	3:50-5:20	10:20-11:50	8:30-10:00	10:20-11:50	3:50-5:20	2:00-3:30	2:00-3:30	2:00-3:30	8:30-10:00
Location:	Kravis 670	Kravis 640	Kravis 640	Kravis 670	Kravis 640	Kravis 670	Kravis 820	Kravis 640	Kravis 670
	9/23 Kravis 490		9/23 Kravis 440			9/23 Kravis 490			
makeup for 9/26/2022	8:30am		8:30am			2:00pm			
	9/30 Kravis 490		9/30 Kravis 440			9/30 Kravis 620			
makeup for 10/5/2022	8:30am		8:30am			8:30am			

Please note: There will be no classes for Clusters A, C, and F, on Monday 9/26 and Wednesday, 10/5. Class 7 will be on 9/23, class 9 on 9/30, and class 10 on 10/3. See table above for times and locations of make-up classes.

Teaching Assistants:

Lukas Fischer (<u>LFischer23@gsb.columbia.edu</u>), office hour Friday 9-10am (location will be sent weekly).

Review Sessions:

Weekly, starting 9/16: Fridays 10:20-11:50am, Kravis 420 (Kravis 690 on 10/7 only) Exam review session, Wednesday, October 19th, 6:00-7:30pm, Geffen 620.

Evaluation

All core courses are graded on a curve with the following distribution: 20-25% H; 60-70% HP; 10-15% P (or below). Please note that we also make use of plus (+) and (-) designations within the H and the HP range. Grade determinants and their relative weights are as follows:

Class Participation (20%): In-class discussions are an integral part of the course, and students are expected to contribute to the learning experience of the class by asking relevant questions, offering insights into the topic at hand, and generally behaving in a professional manner. Quality of contribution matters more than quantity.

Class participation scores will also take into account attendance, lateness, and completion of pre-class (Canvas) and in-class surveys. Students are expected to attend each class session. Absences from class are only appropriate in cases of illness, personal or family emergency, military service, court appearance or religious observance. Students who believe their absence is excused must reach out to the Office of Student Affairs (OSA) using the Core Absence Form on the course Canvas page. OSA will contact faculty on a student's behalf.

Problem Sets (30%): There are five problem sets, one assigned each week. <u>Problem sets are</u> due before midnight (11:59PM) on Monday nights, as follows.

Problem Set:	1	2	3	4	5
				Strategic	
Topic:		Pricing	Markets	Interaction	
Topic.	Consumer	Cost Analysis	Segmented	Supply & Demand /	Game Theory /
	Demand	Cost Analysis	Pricing	Adverse Selection	Auctions
Due Date:	12-Sep	19-Sep	26-Sep	3-Oct	10-Oct

Problem sets are Type B2 (see table below). They must be <u>written up and turned in individually</u>. Students can discuss concepts related to the problems, but not their own individual submissions or solutions, with members of their learning team and/or other classmates.

			Preparation of		Discussion of
Туре	Designation	Grade	submission	Discussion of Submission	Concepts
B2	Individual with	Individual grade	Individual	Not permitted to	Permitted
	discussion of		preparation	share/discuss solutions or	
	concepts only			submission	
		-	preparation	·	

<u>Problem sets are to be submitted as a single PDF file via Canvas</u>. Please name PDF files using the following convention: "Economics_PS#_FIRSTNAME_LASTNAME.pdf" where # is the problem set number (1 to 6) and FIRSTNAME/LASTNAME are filled in with your name.

Submissions are scored and returned via Canvas. Partial credit is given for problem sets turned in within 8 hours of the normal deadline in the following manner (determined by time-stamp

for upload to Canvas): 20% reduction for *any* lateness, plus a reduction of 10% per hour, giving partial credit to any assignment turned in before 8:00AM the next day. (E.g., the score for an assignment turned in at 2:30AM would be reduced by 20%+25% = 45%.) At 8:00AM the following day, solutions will be made available on Canvas, and no more assignments will be accepted. Students are encouraged to turn in problem sets prior to the due date.

Final Exam (50%): The final exam will occur on October 21. More details of the final exam will be announced closer to the date. The exam includes both quantitative and qualitative components and is submitted via Canvas. Students will be able to work on laptops and have access to their class materials, but use of the internet is strictly limited to downloading exam materials and uploading exam submissions.



Course Outline and Materials

<u>Handouts</u>: Students are expected to download the class handout to their school provided tablet before class. The handout accompanies slide presentations. <u>Handouts do not contain all presented material</u>, and students will find it useful to take notes. Copies of presentations, and any other relevant materials from class will be posted on Canvas after class.

<u>Cases:</u> We will discuss three Columbia Caseworks cases during the semester: General Motors: Relevant Costs of Production (Session 3), Airline Pricing on Shuttle Routes (Session 4), and AMAX Corporation (Session 6). All cases are available online via Canvas. Students should <u>work with their learning teams</u> to analyze case questions and prepare for class discussion.

<u>Practice problems</u>: A set of problems (and their solutions) will be posted on Canvas to help students prepare for the problem sets and final exam. Students seeking help with these problems are encouraged to discuss them with the course Teaching Assistants at Friday review sessions.

<u>Video</u>: Video from class sessions will be posted via the Echo system; one video will be posted on each session topic but will vary with respect to the particular cluster recorded. Posted on the Canvas course page you will also find an Excel spreadsheet with links to selected YouTube videos on various topics covered in class which you may find helpful. Additional video may be posted on Canvas for advanced topics that we cannot cover in class but which are of interest.

<u>Textbook:</u> For students who have not taken economics before, textbook readings are likely to be helpful. We recommend readings from two Managerial Economics textbooks: Samuelson and Marks (9th edition) and Froeb et al. (5th edition). These are available in the Geffen library.¹

		Samuelson and Marks, 9th Edition		Froeb	et al., Fifth Edition
#	Session Topics	Chapters	Pages	Chapters	Pages
1.	Consumer Demand	3 and 4	53-63, 90-94	6	67-77
2.	Cost Analysis I	6	163-177	3, 4, 6	26, 39-43, 77-78
3.	Cost Analysis II			3, 4	29-33, 38
4.	Segmented Pricing I	3	67-72	13	163-169
5.	Segmented Pricing II	9	278-280	14	171-175
6	Supply and Demand	7	198-203, 206-207	8	95-108
7	Limits of the Market		none		none
8.	Adverse Selection	15	433-436	19	243-250
9.	Game Theory	9 and 10	262-265, 282-292, 299-304	15	188-195
10.	Auction Design	14	417-421	18	233-239
11.	Agency and Incentives	15	436-440, 446	21	269-273, 274-275

A Note Regarding the Use of Calculus

Many graduate courses in microeconomics use calculus, but this mathematical approach is typically a non-starter when interacting with clients, colleagues, and superiors in the real world of business. Moreover, for real-world business decisions a purely mathematical approach would be highly complex. Hence, we introduce various concepts and tools without the use of calculus. However, students who feel comfortable with mathematical abstraction may find it useful to represent economic concepts with calculus, and from time to time we may post supplemental materials that present concepts mathematically. Students are not expected to use them; they are intended as extra help for students who find calculus makes it easier to understand economics.

¹ Several leading textbooks align with the topics covered in class, and students should feel free to choose a different textbook and locate the relevant chapters on their own. Some good alternatives are: Microeconomics by Michael Katz and Harvey Rosen; Microeconomics by Robert Pindyck and Daniel Rubinfeld; Microeconomics: An Integrated Approach by David Besanko and Ronald Braeutigam; and Microeconomics for Managers by David Kreps.

CLASSROOM NORMS AND EXPECTATIONS

Core Culture

Students are expected to adhere to <u>CBS Core Culture</u> in this class by being Present, Prepared, Participating.

Inclusion, Accommodation, and Support for Students

At Columbia Business School we believe diversity strengthens any community or business model and brings it greater success. The School is committed to providing all students with equal opportunity to thrive in the classroom by providing a learning, living, and working environment free from discrimination, harassment, and bias on the basis of gender, sexual orientation, race, ethnicity, socioeconomic status, or ability.

Students with documented disabilities may receive reasonable accommodations. Students are encouraged to contact the Columbia University's Office of Disability Services for <u>information</u> about registration.

Columbia Business School adheres to all community, state, and federal regulations as relate to Title IX and student safety. Read more about CBS' policies to support <u>Inclusion</u>, Accommodations and Support for Students here.

Honor Code and Academic Integrity

The <u>Columbia Business School Honor Code</u> calls on all members of the School community to adhere to and uphold the notions of truth, integrity, and respect both during their time in school, and throughout their careers as productive, moral, and caring participants in their companies and communities around the world. All students are subject to the Honor Code for all of their academic work. Failure to comply with the Honor Code may result in <u>Dean's Discipline</u>. Here you can review <u>examples of Academic Misconduct</u> which may result in discipline.

Course materials (videos, assignments, problem sets, etc.) are for your use in this course only. You may not upload them to external sites, share them with students outside of this course, or post them for public commentary without the instructor's permission

Course Attendance Policies

Students should review and be familiar with the MBA Core attendance policy here.

This course uses PollEverywhere to increase in-class student engagement. PollEverywhere may also be used to confirm student attendance and participation records. If a student is absent from class and attends a different cluster's class meeting, it is at the discretion of the faculty member to count responses to any polls presented during this time as attendance or participation. Responding to a poll when not present in the classroom is a violation of the Honor Code.