

BEPP 250 – Managerial Economics

Fall 2016

Mondays and Wednesdays 1.30-2.50 (section 1) and 3.00-4.20 (section 2), Room: 211

Instructor: Gilles Duranton

Room: SHDH 1470.

Email: duranton@wharton.upenn.edu

Web: <https://real-estate.wharton.upenn.edu/profile/21470/>

Office hours: Tuesdays 9.30-11.30

TAs: Caitlin Gorback (cgorb@wharton.upenn.edu), Laurence Go (golaur@wharton.upenn.edu) and Kanishka Rao (raok@wharton.upenn.edu). Kanishka Rao's office hours will be announced ASAP.

Welcome to BEPP 250! This course will introduce you to “managerial economics” which is the application of microeconomic theory to managerial decision-making. Microeconomic theory is a remarkably useful body of ideas for understanding and analyzing the behavior of individuals and firms in a variety of economic settings.

While this is a “tools” course, we will cover many real-world applications, particularly business applications, throughout the course so that you can witness the usefulness of these tools and acquire the skills to use them yourself.

The first major task in the course is the development of the theory of supply and demand underlying the competitive model, which serves as the benchmark for evaluating other market structures. Outside of the purely competitive context, an understanding of demand is essential to many firm decisions including pricing, marketing, and product positioning. The concept of supply and the supply curve provides an invaluable framework for thinking about firm costs and investment decisions. After presenting the competitive model, we turn to other market structures more like those encountered by real-world firms such as monopoly and oligopoly. We then investigate the development and use of market power, as well as strategic interaction in both product markets and auctions. Finally, we examine what happens asymmetric information and market externalities occur.

Prerequisites: Students need to have taken ECON 1 or ECON 10 or its equivalent. Also, you will finally be able to apply the tools you learned in calculus. In particular, students need to be comfortable with taking derivatives. To assist you in reclaiming that level of comfort (which you surely had when first taking calculus), your TA will dedicate the first recitation to reviewing relevant mathematical methods and will be available throughout the semester to assist with problem-solving. While there will be some adjustment in getting accustomed to actually applying calculus to real-world problems, it makes it significantly easier to learn the basic principles of microeconomic theory.

Textbook: The textbook for this course is *Intermediate Microeconomics* (Norton) by Hal R. Varian. It is available at the Penn Bookstore with its (free) package workouts. Should you order it independently, please pay attention to the ISBNs as they differ for the textbook with and without workouts (even though the price should be the same). What really matters here is the workout material.

Exam dates: The midterm exam is scheduled for Thursday, October 20, 6-8PM. The final exam is scheduled for Tuesday, December 15, 3-5PM. Both exams are “closed book”. We will provide you with a non-programmable calculator for the two exams.

Requirements: Grades in this course depend on attendance (5%), participation (5%), problem sets (10%), a midterm exam (30%), and a final exam (50%).

Attendance: Attendance (and displaying your name tents) is mandatory and attendance will be recorded within 5 minutes of the start of each lecture. Lectures will have a seating chart so please be in your proper seat on time.

You will use WhartonConnect to register your attendance with a smartphone. There are sometimes glitches (or you may not have a smartphone). In this case, please come to sign up manually at the end of the class. I will keep a list on paper. We only upload the information about manual sign-ups a couple of times during the term. Manual sign-up is not an option if you enter the room late.

In grading attendance, each student has a credit of three excused absences. This should cover religious holidays, illnesses, and other legitimate reasons for missing a class. After using up your three excused absences, all subsequent absences are unexcused and will result in an attendance grade of zero. Should you miss more than 3 lectures for legitimate reasons, you will need to provide documentation for all your absences.

Participation: Every student starts with a baseline mark of 2. Positive behavior such as constructive participation during class and good answers on Piazza (see below) will be rewarded with more points. Negative behavior such as repeated use of electronics, sleeping in class, talking to neighbors will lead to a lower grade.

Problem Sets: Problem sets will be posted on Canvas/Piazza a week in advance. These will have to be handed in recitation and will be handed back to you at the next recitation. Problem sets are designed to give you practice working on the material and to prepare you for the exams. Only through practice with the concepts taught in this course can you become proficient with them. While problem sets are graded pass/fail based on apparent effort and not accomplishment, we strongly advise that you take them very seriously. Think of them as an investment that will pay off when it comes to taking exams.

Class discussions, emails, and lecture notes: While we will still be using Canvas for transmitting grades, posting lecture notes, and all official notices. Piazza will be our first choice for all the communication regarding the content of the class. Find our class page at: <https://piazza.com/upenn/fall2016/bepp250/home>

Rather than emailing questions to the teaching staff, we encourage you to post your questions on Piazza. Email should be reserved for urgent and personal issues only. Questions regarding course materials, logistics, lectures, or homework should also be directed to Piazza.

Some quick advice regarding the Piazza etiquette:

- Look at related threads before posting a new one. There is no point starting a tenth thread on consumer surplus.
- Feel free to answer each other's questions. You will get participation points for this.
- Be realistic in your expectations. You cannot expect the TA who manages Piazza to log in 20 times a day and answer in real times. For highly involved questions or questions that reveal that you're missing several crucial elements, it is perfectly legitimate to send you to the next office hours.

Recitations: Each student must register for a Friday recitation run by a TA. The TA for your recitation will grade your problem sets and is your primary resource for addressing questions on course material. While attendance at recitation is not mandatory, it is highly encouraged. Just consider it in cost-benefit terms. If attending recitations allows you to answer just one question on an exam that you would not have been able to answer otherwise, it would be time well-spent in terms of delivering a higher course grade.

Ethics: You are expected to review and abide by the University of Pennsylvania's Code of Academic Integrity. Violations of the code carry serious sanctions. The faculty will turn all cases of code violations over to the Office of Student Conduct and reserve the right to impose additional sanctions, including a failing grade for the assignment / exam and the course.

Electronics: Checking your smartphone, tablet, laptop, smartwatch, or any other device that connects you to the world outside of this classroom is not allowed unless an exception is made in association with some classroom activity (or some disability).

Re-grading Policy: Grading mistakes are rare, but they can occur. In the event that you believe your test has been graded incorrectly, please follow the steps below:

- 1) Go home from class and read the answer sheet posted on Canvas carefully. Take at least 24 hours to think about the answers before submitting a re-grade request.
- 2) If you do submit a request, submit it in writing on a separate piece of paper and attach that sheet to your exam. Do not write on the exam. Additionally:
 - a) For each part of the exam that you think was mis-graded, give a written explanation of your view.
 - b) You must ante up one exam point for each part of the exam that you think was mis-graded. You get that point back only if your complaint is judged to have merit. Otherwise, you lose the point.
 - c) You must submit the entire original exam (not just the question(s) you wish to have re-graded). Your score could go down or up as a result of re-grading.
 - d) We reserve the right to re-grade the whole exam (even questions not requested for a re-grade).

Missed exams: Students are expected to attend the mid-term and final examinations. A missed exam will be assigned zero points, unless the student has a medical or personal emergency or some unavoidable school-related conflict that is recognized and excused by a student's instructor. In all cases, a student must make a request for an excused absence to the BEPP course administrator. We ask students to provide appropriate documentation. Conflicts with other exams will be dealt with on a case-by-case basis. In case of a conflict between exams, a student is required to notify us of the conflict at least two weeks prior to the exam date.

A make-up exam is usually organized around the date of the main exam. You can only attend it if you have been excused for the main exam. We can only organize on such make-up exam. If you miss both the mid-term exam and the make-up mid-term exam and have been given an excused absence for both, the weight originally assigned to the mid-term exam will be shifted to the final exam which means the final exam will determine 85% of your final grade. For those who miss the final exam and have an excused absence, there will be a make-up final exam in September (or earlier if at all possible).

Students with disabilities: Requests for academic accommodations need to be made during the first two weeks of the semester, except under unusual circumstances, to arrange reasonable accommodations. Students must register with Student Disabilities Services (SDS) for disability verification and for determination of reasonable academic accommodations.

BEPP 250 Course Schedule and Key Dates
(The topic schedule is approximate and will be updated)

<i>Lecture</i>	<i>Date</i>	<i>Action</i>	<i>Session Topic(s)</i>	<i>Readings</i>
1	W Aug 31		Introduction	
2	W Sept 7		Consumers: Preferences	3,4, 31
3	M Sept 12		Consumers: Budget constraints and choices	2, 5.1-5.5
4	W Sept 14		Consumers: Demand	6.1-6.7, 15.1-15.6
5	M Sept 19		Consumers: Changes in prices and income	8.1-8.4
6	W Sept 21		Firms: Production	19
	F Sep 23	Homework 1 due		
7	M Sept 26		Firms: Cost	21, 22
8	W Sept 28		Firms: Profit-maximization	20
9	M Oct 3		Markets: Competitive equilibrium	23.1-23.5, 24
10	W Oct 5		Markets: The Alusaf Hillside Project case	
	F Oct 7	Homework 2 due		
11	M Oct 10		Markets: Welfare economics	14.1-14.7, 14-9-14.11, 16.1-16.5
12	W Oct 12		Markets: Welfare economics (cont'd)	16.6-16.9
	F Oct 14	Homework 3 due		
13	M Oct 17		Catch-up / review session	
14	W Oct 19		Monopoly: Pricing	25
	Th Oct 20	MIDTERM 6-8PM	COVERS MATERIAL IN LECTURES 1 THROUGH 12	
15	M Oct 24		Monopoly: Price discrimination	26.1-26.4
16	W Oct 26		Imperfect Competition: Game theory	29.1-29.4
	F Oct 28	Homework 4 due		
17	M Oct 31		Imperfect Competition: Game theory	29.5-29.8, 30.1-30.4
18	W Nov 2		Imperfect Competition: Price choice	29.7-29.8, 30.6
19	M Nov 7		Imperfect Competition: Quantity choice	28.9
20	W Nov 9		Imperfect Competition: Collusion	28.5
	F Nov 11	Homework 5 due		
21	M Nov 14		Auctions	18
22	W Nov 16		Uncertainty: Choice	13.1, 12.1- 12.4
23	M Nov 21		Uncertainty: Demand for Insurance	12.5-12.7
24	M Nov 28		Uncertainty: Competition and Selection	38.1-38.3
25	W Nov 30		Moral Hazard and selection	38.4, 38.7- 38.8
	F Dec 2	Homework 6 due		
26	M Dec 5		Externalities	35, 36.4-36.7
27	W Dec 7		Public goods	37.1-37.8
28	M Dec 12		Catch-up / review session	
	Th Dec 15	FINAL 3-5 PM	COVERS MATERIAL IN LECTURES 1 THROUGH 28	