This is a course on intermediate microeconomics. We will build a solid foundation on microeconomics and use it as a toolkit to solve problems in business, policy, and social science. These tools are based on creative application of three basic principles: people respond to incentives, individual behavior aggregates into equilibrium social behavior, and we can use normative criteria to compare different outcomes.

The course covers the most important models of consumer, firm, and market behavior. The goal of the course is both to master microeconomics and to apply the basic principles to real problems. Have you wondered “How should Uber set prices?”, “How does trade with China affect American manufacturing?”, “Why are Playstation games expensive while Sony sells the console at cost?”, “Should income tax rates for millionaires be 75%?”, “should Spotify start charging per song?”, “Why does Apple manufacture the iPhone and designed iOS while Google built Android but not phones?” If you have, then you came to the right syllabus.

BEPP 250 honors (but not regular) counts as a substitute for ECON 101 to take upper level econ courses because we will rigorously cover the key topics in microeconomics.

**Grading**

Grades in honors depend on attendance (5%), problem sets (10%), two midterms (25% each), and a final exam (35%). The curve is carefully set to make sure students taking honors are neither at an advantage nor at a disadvantage versus students taking the regular sections.

**Problem Sets**: There will be six problem sets due every other Wednesday. Problem sets must be dropped off at SHDH 1400 in a box close to Ms. Beth Moskat’s office. I will accept psets dropped off on the Thursday right after the due date, as long as they make it into the dropoff box during business hours when Beth is there. I will NOT accept psets any later than that. No leniency. So if you want to be absolutely sure drop them off before 2PM, otherwise you are at your own risk.

**The midterm exams are scheduled for Wednesday, February 18 and April 1st, 6-8PM. The final exam is scheduled for Friday, May 8, 6-8PM.** Exams are closed book and you cannot bring a calculator (nor will you need one). Exams will be VERY CONSISTENT with our problem sets, problems in lectures, and practice problems, so doing those is the BEST WAY TO PREPARE. Hopefully all caps is enough to clarify this point.

**How to Learn**

Recitation: Our graduate TA YinYin Yu will teach recitations on JMHH Mondays (G92) and Tuesdays (F86) 5-6pm and Fridays (G86) 11am-12pm and 1-2pm. Recitation will
cover a problem that is useful for preparing for the exams and be devoted to clarifying
the content in the week’s lectures. Recitation starts January 23rd.

Office Hours: Undergraduate TAs Barrett Block and Natalie Borowski will hold office
hours Mondays and Tuesdays 6:00-7:30pm (JMHH F55). Professor Azevedo has office
hours Mondays 3-5pm at SHDH 1455. You are very welcome to come to office hours to
get help with problem sets, the material, and preparing for exams. OH starts January
26th.

Piazza: You are highly encouraged to use our Piazza site when you have questions.
Our undergrad TAs will devote a few hours a week to answering questions on Piazza,
and we expect this to be a lively community to discuss the material.
https://piazza.com/upenn/spring2015/bepp250h/home

Extra Problems: Besides the problem sets we will post additional practice problems on
Canvas. Some of these problems are more basic, and designed to make sure you are
prepared for the exam. We also have challenge problems that apply economics to real-
world issues. The exams will look like the problem set problems and the practice
problems, not like the challenge problems. Doing problem sets and practice problems is
the best way to prepare.

Textbook: The textbook for this course is Intermediate Microeconomics with Calculus: A
Modern Approach by Hal Varian. The book is optional because the class slides and
problems have everything you need to know. But both this book and Varian’s book
without calculus have pretty good explanations of the topics, so you may want to get
them.

Contact and No Excuses Policy

If you have a question about the content, go to Piazza first. Our undergrad TAs will be
actively helping people students, and we expect our Piazza community to be active and
helpful to everyone. Remember, your question is probably someone else’s question too.

After Piazza, your primary point of contact for any course-related matters are your TAs,
Barrett Block <blockp@wharton.upenn.edu>, Natalie Borowski<brorowski@wharton.upenn.edu>, Yinyin Yu <yingy@as.upenn.edu>. If your question
is related to course rules, please read the syllabus before contacting one of them. If
your question is about exception to the rules, there are no exceptions.

In the interest of fairness, and minimizing the number of emails received by Professor
Azevedo, Professor Azevedo will strictly observe the rules in the syllabus. There will be
no leniency about missed problem sets, absences, bumping up grades, etc.
Schedule and Readings

Background readings are optional. Their goal is to help us learn about business and policy applications. Background readings will not be on the exam. The textbook is also optional. But it will be easier to follow class if you read the corresponding textbook chapter in advance.

January 14 – Intro

“The economist who revealed how media bias works” Quartz, April 2014 http://qz.com/202391


January 19 - Holiday

January 21 - Comparative statics
Varian Chapters 1, 15.5-6,16.1-5


January 26 - Consumer theory (Basics)
Varian Chapters 2 and 4


January 28 - Consumer theory (Choice)
Varian Chapter 5

Problem set 1 due

**February 2 - Review and Firms**
Varian Chapter 19  
*The Wealth of Nations*, book I Chapter 1  

**February 4 - Firm: cost minimization**
Varian Chapter 21

**February 9 - Firm: cost curves**
Varian Chapters 22
“Tesla to gamble on Nevada electric car plant”; *Financial Times*, Richard Waters  
September 3, 2014  
[http://www.ft.com/intl/cms/s/0/7236bd5c-33a6-11e4-ba62-00144feabdc0.html#axzz3MBmW1T65](http://www.ft.com/intl/cms/s/0/7236bd5c-33a6-11e4-ba62-00144feabdc0.html#axzz3MBmW1T65)

“Tesla’s High-Stakes Gamble”, *The Economist*, Babbage, Science & Technology, 9/22/14  

**February 11 - Firm: supply**
Varian Chapters 23 and 24

“After years of bad headlines the industry finally has some good news”,  
*The newspaper industry - The Economist*, December 8, 2012  

Problem set 2 due

**February 16 - No class to prep for midterm**

**February 18 - Midterm**
6-8pm
February 23 - Welfare and Efficiency
Varian Chapter 14
“This Is How Uber’s ‘Surge Pricing’ Works, Time, Dan Kedmey December 15, 2014
http://time.com/3633469/uber-surge-pricing/

“Troops take over Venezuelan TOILET PAPER factory to ensure country gets supplies because of chronic shortage”, Daily Mail, September 21, 2013


February 25 - Taxation
Varian Chapters 16.6-16.8
“Despite Crushing Costs, Iraqi Cabinet Lets Big Subsidies Stand”; New York Times, James Glanz, August 11, 2005
http://www.nytimes.com/2005/08/11/international/middleeast/11subsidies.html?pagewanted=all&module=Search&mabReward=relbias%3Ar%2C%7B%221%22%3A%22RI8%22%7D

“Thai Farm Subsidy Creates Rice Mountain”; The Financial Times, Emiko Terazono July 12, 2013
http://www.ft.com/intl/cms/s/0/644225ee-e3f5-11e2-b35b-00144feabdc0.html#axzz3MBmW1T65

“Rice Mountain Set To Grow Even Higher”; The Financial Times, Emiko Terazono November 7, 2013
http://www.ft.com/intl/cms/s/0/f14d531c-479d-11e3-b1c4-00144feabdc0.html#axzz3MBmW1T65

“Thailand To End Rice Subsidy Scheme”; The Financial Times, Michael Peel February 11, 2014
http://www.ft.com/intl/cms/s/0/564b9c44-92f6-11e3-8ea7-00144feab7de.html?siteedition=intl#axzz3MBmW1T65

March 2 - Market Efficiency
“The Age of Milton Friedman”; Journal of Economic Literature, Andrei Shleifer, Harvard University, March 2009

March 4 - Monopoly pricing
Varian Chapter 25
One on One: Susan P. Crawford, Author of ‘Captive Audience’; Bits Blog NY Times, Brian X. Chen, February 19, 2013
http://bits.blogs.nytimes.com/2013/02/19/one-on-one-susan-p-crawford-author-of-captive-audience/?_r=5

“Competition Is For Losers”; The Wall Street Journal, Peter Thiel, September 12, 2014
http://www.wsj.com/articles/peter-thiel-competition-is-for-losers-1410535536

Comcast, “This is what a monopoly looks like”; Vox, Updated by Timothy Lee, September 17, 2014

Problem set 3 due

March 16 - Price discrimination
Varian Chapters 26.1-26.6
“How Suppap Kirtsaeng’s Textbooks Idea Led to Supreme Court”, Bloomberg, Greg Stohr, October 26, 2012

http://www.wsj.com/articles/SB10001424052702304458604577488822667325882

“How Suppap Kirtsaeng’s Textbooks Idea Led to Supreme Court”, Bloomberg, Greg Stohr, October 26, 2012

“Four tips for scoring the best online deals this holiday season”; Google-BetaBoston, A Boston Global Site, Janelle Nanos, January 28, 2014
https://www.google.com/search?q=Four+tips+for+scoring+the+best+online+deals+this+holiday+season+.+_BetaBoston&oq=Four+tips+for+scoring+the+best+online+deals+this+holiday+season+.+_BetaBoston&aqs=chrome..69i57.492j0j4&sourceid=chrome&es_sm=91&ie=UTF-8

http://www.wired.com/2012/05/opinion-salmon-ft-ab-testing/

March 18 - Price discrimination
Varian Chapters 26.1-26.6


March 23 - Game theory
Varian Chapter 29


March 25 - Game theory
Varian Chapter 29

Problem set 4 due

March 30 - No class to prep for midterm

April 1 - Midterm
6-8pm

April 6 - Ajinomoto Game

April 8 - Cournot
Varian Chapters 28.1, 28.2, 28.5-28.8, 28.10
“As Competition Wanes, Amazon Cuts Discounts”; *The New York Times*,
David Streifeld, July 4, 2013

**April 13 - Bertrand**
Varian Chapter 28.9
“It is Not junk: a blog about genomes, DNA, evolution, open science, baseball and other important things – Amazon’s $23,698,655.93 book about flies”;
*Michael Eisen org blog*, April 22, 2011
http://www.michaeleisen.org/blog/?p=358

“Holiday Price War Rages in Real Time”; *The Wall Street Journal*, Dana Mattioli,
November 23, 2012
http://www.wsj.com/articles/SB10001424127887323713104578137301825621378

**April 15 - Strategy: network effects**
Varian Chapters 36.4-36.7

“Tesla Motors Offers Open Licenses to Its patents”; *The Wall Street Journal*,
Mike Ramsey, June 12, 2014
http://www.wsj.com/articles/tesla-motors-says-it-will-allow-others-to-use-its-patents-1402594375

“Facebook Net Triples, Sales Up 72%; Social Network Also Continues to Build Its User Base”; *The Wall Street Journal*, Reed Albergotti, April 23, 2014
http://www.wsj.com/articles/SB10001424052702303380004579519623221180410

Problem set 5 due

**April 20 - Auctions**
Varian Chapters 18.1-18.3, 18.6-18.8
“Learning to play the game: American economists said that auctions would be the most efficient way to allocate the radio spectrum. But was the bidding rigged?”;
*The Economist*, May 15, 1997
http://www.economist.com/node/149797

“4 Crazy Moments in Auction Theory History”; *Mind Your Decisions blog*,
July, 22, 2014
http://mindyourdecisions.com/blog/2014/07/22/4-crazy-moments-in-auction-theory-history/#.VKWwDIrF_lQ

**April 22 - Externalities**
Varian Chapter 35
http://www.nytimes.com/2013/08/05/world/asia/hours-to-go-just-to-get-to-work.html
“Q. and A.: Chip Jacobs on Struggling With Smog in Los Angeles and Beijing”;

April 27 - Adverse selection
Varian Chapter 38.1

April 29 - Review
Problem set 6 due

May 5 – Final
6-8pm
Other Important Information

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.

Attendance: Attendance (and displaying your name tents) is mandatory and attendance will be recorded within 5 minutes of the start of each class. The class will have a seating chart so please be in your proper seat on time. Exams will be based on the material covered in lectures. While the textbook is a useful complement to the lectures, it is definitely not a substitute so you really do want to attend class. In grading attendance, each student has a credit of two excused absences. This should cover religious holidays, illnesses, and other legitimate reasons for missing a class. Thus, if a student attends at least 24 out of the 26 lectures then s/he will receive a perfect attendance grade. After using up your two excused absences, all subsequent absences are unexcused and thus will lower your attendance grade. If you do miss a class, you are encouraged to report and explain it using Course Absence Report. CAR is solely for information purposes and its use cannot hurt you (in particular, it will not affect your course grade) and could help you (by keeping Academic & Advising well-informed of any possible problems; remember, they are there to support you).

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. Among such violations is the altering of exams after the exams are returned. In the spirit of discouraging any temptation to engage in such unethical practices, copies of midterm and final exams will be made before they are returned to students. 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.

Re-grading Policy: It is our experience that grading mistakes are rare, but we realize that they do occur. In the event that you believe your test has been graded incorrectly, please follow the steps below:

1) Go home from class and carefully read the answer sheet posted on Canvas. Take at least 24 hours to think about the answers before submitting a re-grade request.

2) If you decide to 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).

Policy for Missing an Examination: 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 his or her instructor (by email) prior to the regularly scheduled exam. The instructor may ask the student 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 the instructor of the conflict at least two weeks prior to the exam date.

For those students who miss the mid-term exam scheduled for February 27th and have been given an excused absence by the student’s instructor, they will be allowed to take the make-up mid-term exam that will occur on March 3rd. If you miss the make-up exam without having received an excused absence (for the make-up exam) then you will receive zero points. 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.

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.