Course Syllabus[†], Fall 2018

SECTION INFORMATION

Section	Day	Time	Room	Instructor	Office hours
612-001	T/Th	9-10:30	JMHH 255	Benjamin Lockwood	
612-002	T/Th	10:30-12	JMHH 255	Benjamin Lockwood	
612-003	T/Th	1:30-3	JMHH 255	Benjamin Lockwood	
612-004	T/Th	9-10:30	JMHH 245	Clayton Featherstone	
612-005	T/Th	10:30-12	JMHH 245	Clayton Featherstone	
612-006	T/Th	1:30-3	JMHH 245	Clayton Featherstone	
612-007	T/Th	9-10:30	JMHH 250	Daniel Grodzicki	
612-008	T/Th	10:30-12	JMHH 250	Daniel Grodzicki	
612-009	T/Th	1:30-3	JMHH 250	Juuso Toikka	
612-010	T/Th	9-10:30	JMHH 240	Juuso Toikka	
612-011	T/Th	10:30-12	JMHH 240	Gizem Saka	
612-012	T/Th	1:30-3	JMHH 240	Gizem Saka	

READINGS

The principal readings for the course will take the form of short popular press articles, posted on Canvas. Each class session will have one to three articles assigned for reading in advance of class. For students who wish to supplement the lectures, the primary textbook is "Microeconomics", B. Douglas Bernheim and Michael D. Whinston, 2nd Edition, McGraw-Hill [BW below]. It is not mandatory, but may be useful for students with no or little background in economics, or those who have not seen similar material in many years. The text is available at the bookstore.

[†] Updated July 25, 2018

Before each class, we expect all students to have read the assigned popular press articles for that class to facilitate a classroom discussion on the lecture's lesson. PDF versions of the assigned articles are available under "Files\Reading" on Canvas.

TEACHING ASSISTANTS

Name	Email	Grades for…
Stephen Kozhimala	skoz@wharton.upenn.edu	Sections 001, 002
Bao Tran-Phu	tbao@wharton.upenn.edu	Sections 003, 004
Minwoo Choi	minwooc@wharton.upenn.edu	Sections 005, 006
Vananth Subramanian	vasanths@wharton.upenn.edu	Sections 007, 008
Manan Agarwal	mananag@wharton.upenn.edu	Sections 009, 010
Julie McGibbon	Julie.m.mcgibbon@gmail.com	Sections 011, 012

TAs are responsible for holding office hours, teaching TA sessions, and performing grading. For the most part, we request that you not email TAs, and rather ask questions on the central Piazza site—this allows all students to benefit from your question, and prevents the TAs from having to answer the same thing several times.

Questions posted to Piazza on weekdays will be answered within 24 hours; questions posted on weekends will be answered by end of day on Monday. (Meaning, if you want an answer by 4pm on Wednesday so you can have time to finish your problem set due 4pm on Thursday, submit your question by 4pm on Tuesday. Questions posted about the problem set after 4pm the day before the due date may not be fully answered.)

TA office hour schedule:

Office hours begin in the week of October 29 and extend through the week of December 10, with the exception of the week of November 19 (Thanksgiving).

	Monday	Tuesday	Wednesday	Thursday
3:00-4:30 pm				
4:30-6:00 pm				
6:00-7:30 pm				

TA office hours are a time to receive one-on-one help from TAs. This is essentially free "tutoring" time, when the TA can go through any concepts you might be struggling with. We do ask, however, that students not ask directly about the problem sets in office hours. Instead, please come prepared to ask for help with similar questions, or the general concept being covered by a certain problem. If you have clarifying questions on problem sets, please ask them on Piazza.

TA SESSIONS

Lecture time is scarce, and will thus be targeted at conveying the core concepts, motivating the intuition behind the concepts and their usefulness, providing an outline of how to solve problems, and class discussion. If you have not taken economics before, do not have a quantitative background, or find yourself struggling to understand the slides, you can go to TA sessions (also called "recitations") for more details on how to solve problems and step-by-step description of the math involved. This combination of lecture plus TA recitation sessions allows us to target lecture to the "median student," with recitation to supplement for students who find the pace too fast. While going to recitation is not mandatory, it will be extremely helpful if you struggle to understand the lecture materials. The TA will go through the problems solved in lecture more slowly, in greater detail, as well as doing supplementary problems when time allows. There will also be fewer students in each TA session, which will allow you to ask questions and receive more customized assistance.

You do not need to register for TA recitation sessions, but should plan to choose the one that fits your schedule and attend it regularly.

The TAs will also hold reviews for the final exam, which will be announced closer to the end of the quarter.

TA session schedule:

TA sessions begin in the week of October 29 and extend through the week of December 10, with the exception of the week of November 19 (Thanksgiving). In a given week, all TA sessions will cover the material from the Tuesday and Thursday lectures of the previous week of instruction.

TA	Day	Time	Room
Stephen Kozhimala			
Bao Tran-Phu			
Minwoo Choi			
Vasanth Subramanian			
Manan Agarwal			
Julie McGibbon			

MATHEMATICAL REQUIREMENTS

In this class, you are required to be able to do algebra and calculus. If you struggle with these, you may consider investing in a graphing calculator (TI-89) that can take derivatives for you. To be successful in this class, you should:

1. Be able to graph an equation, especially a linear equation.
2. Be able to solve a system of two linear equations and two unknowns.
3. Be able to compute the derivative of a simple equation.
4. Know how to find the maximum or minimum of a function using derivatives.

GRADING POLICIES

1. We encourage students to work together with their learning teams to solve the problem sets. However, each student must write up and submit an individually generated problem set. If you need to collaborate with someone outside your learning team, please write their name on your problem set, e.g., "Additionally consulted: Susan C. Wharton." Working together with your learning team is a great way to build a community that will be with you throughout your Wharton experience, and to learn from one another's strengths.

2. Problem sets should be submitted to the section-labeled hanging folders just inside **1041 Steinberg Hall-Dietrich Hall** (i.e. the smaller door to the left of the main entrance to the 1400 suite). Please submit your problem set to the correct folder associated with your section. The door will be closed at 4 pm on the day of the deadline. Please be mindful that this is a working office. **Submissions will not be accepted once the door is closed, and submissions will not be accepted through any other method, including email.**

3. The exam is closed book, but a one page (front and back) formula/note sheet is allowed along with a stand-alone (not a phone or a computer) calculator (details to be discussed in class).

4. Each problem set is graded on a twenty-point scale across all problems in the problem set. Full points will be given for correct answers showing the derivations. Points will be subtracted for mathematical and logical errors. Zero points will be given for no answers OR correct answers without supporting derivation.

5. If you wish to dispute a grade on an assignment or an exam, you must do so by set deadlines. For problem sets, this deadline will be the Friday after the problem sets are handed back. For exams, the deadline will be announced, but will be no more than 1 week after the exams are available for pickup. In order to file a dispute, you must ante up 5% of the value of the assignment. If we conclude that your dispute is valid, you will receive the 5% back, but if not, we will keep it. We also reserve the right to re-grade all parts of a disputed assignment, not only the specific parts you wish to dispute. Finally, your dispute must be put into writing, attached to the original graded problem set or exam, and submitted to the same place that the homework assignments are submitted, by 4 pm on the dispute deadline. Again,

disputes will not be accepted beyond the deadline, which will be no more than 1 week after graded materials are available for review, and disputes will not be accepted through any other method.

6. **Any evidence of cheating is sent immediately to the Dean.**

7. Your score for the course will be calculated according to the following table. Course grades will be "curved" by individual instructors.

Assessment	Due Date	% Of Grade
Problem Set 1	Tuesday, Nov. 13 (4pm)	13%
Problem Set 2	Tuesday, Dec. 4 (4pm)	13%
Problem Set 3	Wednesday, Dec 12 (4pm)	13%
MGEC 612 Exam	Monday, Dec 17 (9am)	50%
Attendance and Participation	–	11%

CLASSROOM POLICIES

1. Each student must sit in his or her assigned seat with name-card displayed.
2. You are expected to have read the assigned articles before class. We suggest that you briefly discuss them with your learning teams as well.
3. We will cold-call people. If this is an issue for you, please discuss it with your instructor.
4. If you would like to take notes electronically, tablets — but not laptops or smartphones — can be used in the classroom.
5. Wharton "concert rules" apply: be seated when class is scheduled to start and don't leave the room unless absolutely necessary.

ATTENDANCE POLICIES

We will rely on the attendance app developed by the MBA Program Office (MBAPO) in conjunction with the seating chart to record attendance. Arriving FIVE or more minutes late for class is treated as an absence and absences will be excused only for the specific reasons listed on the MBAPO website (personal illness, personal or family emergency, and religious holidays for observant students).

If you were marked absent for class erroneously, you can log into SPIKE and enter an explanation. Please note that absences due to late check-in or forgetfulness cannot be removed or excused, per the MBA Program Attendance Policy for fixed

core classes. However, the explanation will be taken into account when evaluating attendance data. Please review the full attendance policy here:

https://mba-inside.wharton.upenn.edu/mba-program-attendance-policy/.

HOW TO BE SUCCESSFUL IN THIS CLASS

This is a quantitative class, and the exams will test your ability to solve problems with the tools we learn, rather than your memorization of facts. Because of this, the best way to study is to go through the problems we do in class and redo the problem sets carefully on your own. Repetition, in particular of actually answering quantitative problems yourself, is very helpful.

We recommend going through the lecture notes between classes with a pen and paper, doing the example problems out long-form. Additionally, working through the problem sets is not merely busy-work for a grade — they are truly the best preparation for the exam!

If you are struggling, please go to office hours and TA sessions early in the term—do not wait until you are behind!

LIST OF LECTURES AND TOPICS

Note: please refer to each professor's page in case of any changes to articles

Unit 1: Oligopoly—game theory in action

1. Oct 23: Basic Oligopoly—Quantity is king
    1. Bertrand Competition: Choosing Price
    2. Cournot Competition: Choosing Quantity
    3. Horizontal mergers

    Textbook: BW Chapter 19.1-19.4

    Article: "Many Unhappy Returns for a $50 Billion Merger", Chris Hughes, Bloomberg, 07/13/2016.

    Article: "Walgreens scraps Rite Aid deal, to buy some stores instead", Lauren Thomas, CNBC 06/09/2017 (and RAD share price chart).

2. Oct 25: Advanced Oligopoly
    1. Collusion
    2. First-mover advantage
    3. Entry deterrence

    Textbook: BW Chapter 19.6-19.7

    Article: Zipcar articles - "New Rivals Challenge Zipcar's Monopoly in Washington D.C.", Forbes, April 16,2012; and "Zipcar, Uber Lower Rental Rates in Driver Partnership", Adam Vaccaro, Boston Globe, March 16, 2017.

    Article: "Texas shale oil has fought Saudi Arabia to a standstill", Ambrose Evans-Pritchard, The Telegraph, 07/31/2016.

    Article: "Potash: what's next for one of the world's major fertilisers", Emiko Terazono, Financial Times, 07/27/2016.

3. Oct 30: Oligopoly with differentiated products
    1. Price competition
    2. Monopolistic Competition: Competitive Pricing with Market Power
    3. Application to advertising

    Article: "P&G Cuts More Than $100 Million in 'Largely Ineffective' Digital Ads", Alexandra Bruell and Sharon Terlep, WSJ, 07/27/2017.

Article: "Coca-Cola to Produce, Distribute Bottled Dunkin' Donuts Coffee", Mike Esterl and Julie Jargon, The Wall Street Journal, 09/29/2016.

Unit 2: Strategic Pricing

4. Nov 1: Introduction to price discrimination
    1. Different types of Price Discrimination: how well are you able to target consumers with different tastes
    2. Perfect price discrimination: applications and outcomes
    3. Pricing on demographics

    Article: "Disney Introduces Demand-Based Pricing at Theme Parks", Brooke Barnes, The New York Times, 02/27/2016.

    Article: "No, Tinder's Pricing Is Not Ageist. It's Capitalist", Jeff Gibbard, Wired, 3/10/2015.

    Textbook: BW Chapter 18.1-18.4 (readings overlap with Lecture 8)

5. Nov 6: Price Discrimination continued
    1. Self-selecting prices
    2. Versioning, "Damaged Goods"
    3. Quantity discounting
    4. Membership pricing

    Article: "'Basic Economy' Airline Service Squeezing Business Travelers," Martha C. Whitejan, New York Times, 01/23/2017.

    Article: "Surf Air is expanding its 'all-you-can-fly' service to Europe", Lora Kolodny, TechCrunch, 7/8/2016.

    Textbook: BW Chapter 18.1-18.4 (readings overlap with Lecture 7)

6. Nov 8: Two-Part Tariffs and Menu Pricing
    1. Self selecting + Quantity=Menu pricing
    2. Optimal two-part tariffs with one consumer, or perfect discrimination
    3. Two-part pricing to markets with multiples types of consumers

    Article: "Meet Reserve, the OpenTable-killer that's taking Philly restaurants by storm", Danya Henninger, Billy Penn, 9/17/2016.

    Article: "Nespresso Is Loosening Its Grip on Coffee Pods," Corinne Gretler and Richard Weiss, Bloomberg, 07/12/2017.

    Textbook: BW Chapter 18.2 (from p. 631), 18.4 (p. 644-648)

PROBLEM SET 1 DUE TUESDAY, NOVEMBER 13

7. Nov 13: Bundling
    1. Capturing surplus from bundling goods together
    2. When "Pure" and "Mixed" bundling strategies are profitable.
    3. Tying goods together.

    Article: "As Streaming Services Amp Up, Not all TV Channels Make the Cut," Shalini Ramachandran, WSJ, 05/14/2017.

    Article: "Verizon Breaks Pay-TV Bundle as Competition Mounts", Shalini Ramachandran and Ryan Knutson, The Wall Street Journal, 4/16/2015.

    Textbook: BW Chapter 18.5

Unit 3: Uncertainty and Private Information

8. Nov. 15: Dealing with Uncertainty
    1. Risk preferences and risk aversion
    2. Buying insurance: Paying to mitigate risk
    3. Behavioral evidence of risk aversion

    Textbook: BW Chapter 11

    Article: "Even With Cheaper Screen Fix, Does AppleCare+ Pay Off?" Nathan Olivarez-Giles, The Wall Street Journal, 9/9/2016.

    Article: "The Basics of Buying Life Insurance." Leslie Scism, The Wall Street Journal, 7/25/2014.

9. Nov. 27: Bidding and Selling in Auctions
    1. Common issues in auction design and format
    2. Bidding functions in different auctions
    3. The winner's curse
    4. Considerations when running or bidding in auctions

    Video: https://www.youtube.com/watch?v=PjOHTFRaBWA

    Article: "Google shares took off, but the IPO didn't", Ari Levy, CNBC, Aug 19 2014.

10. Nov 29: Asymmetric information and adverse selection
    1. Strategic interaction where one party knows more than the other
    2. Market outcomes under asymmetric information
    3. Signaling and screening to overcome adverse selection

    Textbook: BW Chapter 21.1-21.3

    Article: "ClassPass CEO Explains Her Company's Dramatic Price Hike", Katie Sola, Forbes, 04/27/2016.

    Article: "The football team at the buffet: Why Obamacare markets are in crisis", Margot Sanger-Katz, The New York Times, 09/23/2016.

    Article (optional): "Why do only top MBA programs practice grade non-disclosure?", Matthew Philips, Freakonomics, 10/12/2011.

11. Dec 4: Moral Hazard: Incentivizing workers and beyond
    1. The issues of unobserved effort and unobserved preferences
    2. Sales force motivation
    3. Efficiency wages
    4. Executive compensation

    Textbook: BW Chapter 21.4

    Article: "How did Walmart get cleaner stores and higher sales? It paid its people more." Neil Irwine, The New York Times, 10/15/2016.

    Article: "Risk and reward: Data and technology are starting to up-end the insurance business," The Economist, 05/12/2015.

    Optional Article: "Oracle's Catz Becomes Top-paid Female Executive with $57 Million", Anders Melin and Alicia Ritcey, Bloomberg, 05/16/2016.

PROBLEM SET 2 DUE TUESDAY, DECEMBER 4

12. Dec 6: Review

PROBLEM SET 3 DUE TBD

MGEC 612 EXAM – TBD