

UNIVERSITY of HOUSTON

Empirical Industrial Organization– Econ 4376

Spring Semester – 2022

11:30 am - 1:00 pm, Tuesday - Thursday

Depending on University policies, the class delivery method changes during the semester.

Regardless, all classes are “live” and held at the scheduled class time.

Agnes Arnold Hall 10 or Zoom

Contact information

Instructor:

Prof. Andrea Szabo

Office: Online

E-mail: aszabo2@uh.edu

Office hours: By appointment only.

You can schedule an appointment at

<http://www.uh.edu/~aszabo2/appointments.htm>

Teaching Assistant:

Eva Loaeza Albino

Office: First floor in the SR2 building

E-mail: edloaeza@CougarNet.UH.EDU

Office hours: Mondays 3:00 pm - 4:00 pm

Course Description

Welcome to Economics 4376! This course will cover the basic tools and issues in the field of industrial organization. While the standard competitive model covered in Intermediate Micro is an extremely powerful tool, it often fails to characterize much of what is observed in many markets. Each of our topics will cover different cases where one or more of the assumptions of competitive markets fails.

We focus on models where market power of individual firms is created either by the nature of the product, because buyers have limited information about the product, or because firms are able to price discriminate among consumer groups. We close the class by looking at some features of natural monopolies and discuss how public utilities behave on the market, as well as the effects of some regulations on consumer welfare.

This course will emphasize real world case studies, but we will also develop theoretical models that will help us analyze the behavior we see in the case studies. An additional goal of this class is to introduce you to academic research. You will learn how to use library resources, statistical software for data analysis and write effective summaries of case studies.

Prerequisites

Students are expected to have taken Intermediate Microeconomics (ECON 3332) and Introduction to Econometrics (Econ 3370). These prerequisites will be strictly enforced. You will need to be familiar with economic models of perfect competition and monopoly. I will assume that you learned the basics of the statistical software STATA during your Introduction to Econometrics.

Textbook

Mainly, we will discuss a number of journal articles in the field of industrial organization. There is no textbook for this class which covers all discussed topics. Attending classes is a must. The suggested textbook for the course is Modern Industrial Organization by Dennis Carlton and Jeffrey Perloff (ISBN-10: 0321180232, 4th Edition). Some chapters of the book will be posted in Blackboard for your convenience (in accordance with copyright laws).

Course Requirements

This course will be time intensive. You should come prepared to discuss the readings in detail. Assuming that the size of the course is manageable, a significant amount of class time will be devoted to the discussion of the readings.

There will be 5 extensive homework assignments and 2 midterms. Please prepare and submit all your homework assignments knowing that it is possible that I will share it with other students enrolled in the class (without your name or grade).

All homework assignments will be done online through the University of Houston Blackboard Learn website. **All Problem Sets are due on the day listed below by 8.30 am.**

Homework assignments have multiple goals. First, they help you internalize the economic models we discuss in class. Second, you will need to do your own work to get more hands-on experience with research. You will gather data; analyze data using a statistical software; collect, read and summarize newspaper articles and academic papers on specific questions. All these skills will equip you to successfully start your own research in the future.

Midterms will be given in class on the dates listed in the calendar.

All exams are open book and open notes. No cooperation is allowed during the tests. Academic misconduct will not be tolerated and any instances of it will be dealt with according to the appropriate University channels.

If you disagree with the grading of a midterm, submit it for further review. You must submit a written argument for why you deserve more points for the specific question(s) you would like re-graded. If you do not specify this, the entire test will be re-graded and it is possible that you may lose points. You must submit these arguments within one week after the midterm has been returned.

Class Website

All assignments and handouts will be posted on the class website in Blackboard Learn. Go to <http://www.uh.edu/blackboard> and click the white "Blackboard Learn" button. Log in with your CougarNet ID and password.

You will be required to use *Stata*, a statistical software package. You can access *Stata* via the Libraries' Virtual Learning Commons. Please see: <http://ask.lib.uh.edu/faq/169186> and <https://vcon.lib.uh.edu/portal/webclient/index.html> for more details. To get started with the software, please click this link [https://vcon.lib.uh.edu/portal/webclient/index.html/](https://vcon.lib.uh.edu/portal/webclient/index.html#/).

You don't need to download anything and you can just work online on the webclient. This page will ask you for vmware permission- click on 'accept'. Then it will ask you for your cougarNet id and password. Once you provide these you will see a page with different software, STATA is in the bottom row. Double click the link to open the software. You can copy-paste your data in the data editor or upload your dataset from the "file transfer" tab in the upper left corner.

If you would like to get your own copy of STATA, UH has an agreement called “GradPlan” that allows students to purchase various products at much reduced rates directly from *Stata*. The current version is *Stata 16*. I suggest that you buy *Stata/BE* which will be able to handle all of the problems that I will assign in the course. The current pricing for a 12 month license is \$125 for *Stata/BE*. For more detail and to order *Stata* online see the GradPlan website indicated below.

<https://www.stata.com/order/new/edu/profplus/campus-profplus/>

We won’t devote much class time to learning how to use this software. I will assume that you learned the basics during your Introduction to Econometrics, which is a prerequisite for this class.

Grading

You are required to submit all homework assignments on time. Late assignments receive zero points.

Course Component	Percentages
Problem Sets	40
Midterm 1	30
Midterm 2	30
Total	100

The numerical course grade will be converted to a letter grade according to the following scale:

92%-100%	A
90%-91%	A-
88%-89%	B+
82%-87%	B
80%-81%	B-
70%-79%	C+
50%-69%	C
40%-49%	C-
38%-39%	D+
33%-37%	D
30%-32%	D-
-29%	F

There is no curve for the class. This means that you are not competing with other students, and you will always know exactly where you stand in the class based on your performance.

Face Covering Policy

To reduce the spread of COVID-19, the University strongly encourages everyone (vaccinated or not) to wear face coverings indoors on campus including classrooms for both faculty and students.

Presence in Class

Your presence in class each session means that you:

- Are NOT exhibiting any [Coronavirus Symptoms](#) that makes you think that you may have COVID-19
- Have NOT tested positive or been diagnosed for COVID-19
- Have NOT knowingly been exposed to someone with COVID-19 or suspected/presumed COVID-19

If you are experiencing any COVID-19 symptoms that are not clearly related to a pre-existing medical condition, do not come to class. Please see [Student Protocols](#) for what to do if you experience symptoms and [Potential Exposure to Coronavirus](#) for what to do if you have potentially been exposed to COVID-19.

Consult the [Undergraduate Excused Absence Policy](#) for information regarding excused absences due to medical reasons.

COVID-19 Information

Students are encouraged to visit the University's [COVID-19](#) website for important information including on-campus testing, vaccines, diagnosis and symptom protocols, campus cleaning and safety practices, report forms, and positive cases on campus. Please check the website throughout the semester for updates.

Vaccinations

Data suggests that vaccination remains the best intervention for reliable protection against COVID-19. Students are asked to familiarize themselves with pertinent [vaccine information](#), consult with their health care provider. The University strongly encourages all students, faculty and staff to be vaccinated.

Reasonable Academic Adjustments/Auxiliary Aids

The University of Houston complies with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, pertaining to the provision of reasonable academic adjustments/auxiliary aids for disabled students. In accordance with Section 504 and ADA guidelines, UH strives to provide reasonable academic adjustments/auxiliary aids to students who request and require them. If you believe that you have a disability requiring an academic adjustments/auxiliary aid, please contact [the Justin Dart Jr. Student Accessibility Center](#) (formerly the Justin Dart, Jr. Center for Students with DisABILITIES).

Excused Absence Policy

Regular class attendance, participation, and engagement in coursework are important contributors to student success. Absences may be excused as provided in the University of Houston [Undergraduate Excused Absence Policy](#) and [Graduate Excused Absence Policy](#) for reasons including: medical illness of student or close relative, death of a close family member, legal or government proceeding that a student is obligated to attend, recognized professional and educational activities where the student is presenting, and University-sponsored activity or athletic competition. Under these policies, students with excused absences will be provided with an opportunity to make up any quiz, exam or other work that contributes to the course grade or a

satisfactory alternative. Please read the full policy for details regarding reasons for excused absences, the approval process, and extended absences. Additional policies address absences related to [military service, religious holy days, pregnancy and related conditions](#), and [disability](#).

Recording of Class

Students may not record all or part of class, livestream all or part of class, or make/distribute screen captures, without advanced written consent of the instructor. If you have or think you may have a disability such that you need to record class-related activities, please contact the [Justin Dart, Jr. Student Accessibility Center](#). If you have an accommodation to record class-related activities, those recordings may not be shared with any other student, whether in this course or not, or with any other person or on any other platform. Classes may be recorded by the instructor. Students may use instructor's recordings for their own studying and notetaking. Instructor's recordings are not authorized to be shared with anyone without the prior written approval of the instructor. Failure to comply with requirements regarding recordings will result in a disciplinary referral to the Dean of Students Office and may result in disciplinary action.

Syllabus Changes

Due to the changing nature of the COVID-19 pandemic, please note that the instructor may need to make modifications to the course syllabus and may do so at any time. Notice of such changes will be announced as quickly as possible through UH email.

Resources for Online Learning

The University of Houston is committed to student success, and provides information to optimize the online learning experience through our Power-On website. Please visit this website for a comprehensive set of resources, tools, and tips including: obtaining access to the internet, AccessUH, and Blackboard; requesting a laptop through the Laptop Loaner Program; using your smartphone as a webcam; and downloading Microsoft Office 365 at no cost. For questions or assistance contact UHOnline@uh.edu.

UH Email

Email communications related to this course will be sent to your Exchange email account which each University of Houston student receives. The Exchange mail server can be accessed via Outlook, which provides a single location for organizing and managing day-to-day information, from email and calendars to contacts and task lists. Exchange email accounts can be accessed by logging into Office 365 with your CougarNet credentials or through Access UH. Additional assistance can be found at the Get Help page.

Webcams

Access to a webcam is required for students participating remotely in this course. Webcams must be turned on during lectures to promote student participation.

Counseling and Psychological Services

Counseling and Psychological Services (CAPS) can help students who are having difficulties managing stress, adjusting to college, or feeling sad and hopeless. You can reach CAPS (www.uh.edu/caps) by calling 713-743-5454 during and after business hours for routine appointments or if you or somebody you know is in crisis. No appointment is necessary for the

“Let’s Talk” program, a drop-in consultation service at convenient locations and hours around campus. http://www.uh.edu/caps/outreach/lets_talk.html

Honor Code Statement

Students may be asked to sign an honor code statement as part of their submission of any graded work including but not limited to projects, quizzes, and exams: “*I understand and agree to abide by the provisions in the University of Houston Undergraduate Academic Honesty Policy. I understand that academic honesty is taken very seriously and, in the cases of violations, penalties may include suspension or expulsion from the University of Houston.*”

Tentative Course Schedule:

Note: The listed papers will be discussed during class and it will be clear to what extent you need to know them for the exams. If you have any doubt about what is required from you, you need to ask.

Week	Class #	Date/Day			Date/Day	Problem Sets
Week 1	1	Jan	18	T	Welcome to IO! Introduction and syllabus	
	2		20	Th	Competition (Review) Monopoly (Review) Welfare: Perfect Competition vs. Monopoly	
Week 2	3		25	T	Cournot model	
	4		27	Th	Product Differentiation, The effect of differentiated products on competition	
Week 3	5	Feb	1	T	Petrin A. (2002): “Quantifying the Benefits of New Products: The Case of the Minivan”, <i>Journal of Political Economy</i> , 110, 705-729.	PS1 Due
	6		3	Th	Estimating cereal demand – an application I	
Week 4	7		8	T	Estimating cereal demand – an application II	
	8		10	Th	Problems with the logit model, PS2 help	
Week 5	9		15	T	Goeree ,M.S. (2008): “Limited Information and Advertising in the US Personal Computer Industry,” <i>Econometrica</i> , 76(5), 1017–1074.	PS 2 Due
	10		17	Th	Leung, T.C. (2013): “What is the True Loss Due to Piracy? Evidence from Microsoft Office in Hong Kong,” <i>The Review of Economics and Statistics</i> , 95(3): 1018–1029	

Week 6	11		22	T	A. Szabo and V. Pham (2019): “Net Neutrality and Consumer Demand in the Video On-demand Market,” WP, Download from Blackboard	
	12		24	Th	PS 1/2/3 Discussion / Midterm I review	
Week 7	13	March	1	T	Midterm I	PS 3 Due
	14		3	Th	Estimating willingness to pay – an application	
Week 8	15		8	T	. Price discrimination, 3 rd degree price discrimination, 2 nd degree price discrimination	
	16		10	Th	Stefano Della Vigna and Matthew Gentzkow (2017): “Uniform Pricing in US Retail Chains,” <i>The Quarterly Journal of Economics</i> , Volume 134, Issue 4, November 2019, Pages 2011–2084	
Week 9	17		15	T	No Class: Spring Break	
	18		17	Th	No Class: Spring Break	
Week 10	19		22	T	Grocery store pricing: an application I	
	20		24	Th	Grocery store pricing: an application II	PS 4 Due
Week 11	21		29	T	Public Utilities / Pricing of public utilities	
	22		31	Th	S. Borenstein (2012): “The Redistributive Impact of Nonlinear Electricity Pricing,” <i>American Economic Journal: Economic Policy</i> , 4(3): 56–90	
Week 12	23	April	5	T	Mansur, E. T. and S. M. Olmstead (2012): “The Value of Scarce Water: Measuring the Inefficiency of Municipal Regulations,” <i>Journal of Urban Economics</i> , 71(3), 332-346.	
	24		7	Th	Szabo, A. (2015): “The Value of Free Water: Analyzing South Africa’s Free Basic Water Policy,” <i>Econometrica</i> , 83(5), 1913–1961.	
Week 13	25		12	T	Paul J Ferraro and Michael K Price (2013): Using Nonpecuniary Strategies To Influence Behavior: Evidence from a Large-Scale Field Experiment <i>The Review of Economics and Statistics</i> , March 2013, 95(1), 64–73.	
	26		14	Th	Kelsey Jack and Grant Smith: Charging Ahead: Prepaid Metering, Electricity Use, and Utility Revenue, <i>American Economic Journal: Applied Economics</i> , 2020.	

Week 14	27		19	T	TBD / Student presentations	
	28		21	Th	PS 4/5 Discussion / Midterm II Review	PS 5 Due
Week 15	29		26	T	Current topics in IO / Catch up	
	30		28	Th	Midterm II	