UNIVERSITYof **HOUSTON**

Empirical Industrial Organization– Econ 4376
Fall Semester – 2019
1:00 pm - 2:30 pm, Tuesday - Thursday
McElhinney Hall, Room 122

Contact information

Instructor:
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                                                                          You can schedule an appointment at
                                                                          http://www.uh.edu/~aszabo2/appointments.htm

Teaching Assistant:
TBA   E-mail: TBA
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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.
The first topic includes cartel behavior, anti-competitive practices, anti-trust and regulation. Next, we focus on models where market power of individual firms is created either by the nature of the product, or because buyers have limited information about the product. 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 theoretic models that will help us analyze the behavior we see in the case studies. When possible, I will use examples involving Texas based companies, such as United, Hewlett-Packard and CenterPoint Energy. 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 an introductory course in probability and statistics such as Econ 2370 and to have taken Intermediate Microeconomics, ECON 3332. These prerequisites will be strictly enforced. You will need to be familiar with economic models of perfect competition and monopoly, and the basic concepts of statistics, such as mean, variance, covariance, correlation, confidence intervals, etc.
You will find this class extremely more rewarding if you took an introductory econometrics class, such as ECON 3370.

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. There are two suggested textbooks for the course: Modern Industrial Organization by Dennis Carlton and Jeffrey Perloff (ISBN-10: 0321180232, 4th Edition) and Microeconomics by Jeffrey Perloff (ISBN-10: 0-13-139263-8, 6th Edition or higher). Some chapters of the books 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 class is manageable, a significant amount of class time will be devoted to the discussion of the readings.

There will be 6 extensive homework assignments and 3 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 assignments 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 closed book; bring a calculator. No computers of any kind, cell phones or programmable calculators. 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 regraded and it is possible that you may lose points. You must submit these arguments within one week after the midterm has been returned.

In-class assignments and in-class exercises

During each class, you will complete a short quiz online in Blackboard. Each quiz contributes to 2 percent of your class grade. We have 26 classes (not including midterms), and I will count 20 of your best class quizzes towards your final score. If you miss a class, you will receive zero for your class quiz, but you are able to miss six classes without penalty.

To complete class quizzes you will need a laptop or a tablet / phone with the Blackboard App installed.

For some classes, you will need a laptop with STATA installed to participate in class exercises. You may work in groups if cannot bring a laptop in class. You need to arrange your group in advance.

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.

Statistical software package

You will be required to use Stata, a statistical software package. Public versions of Stata are available at selected locations on the UH campus. Students registered for Econometrics may use the six computers in the Economics Department Undergraduate Computer Lab in room 208 E McElhinney (hours: M-Th, 8am-4:30pm, F 9am-2pm). You also 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.

UH has an agreement called "GradPlan" with Stata that allows students to purchase various products at much reduced rates directly from Stata. The current version is Stata 15. I suggest that you buy Stata/IC which will be able to handle all of the problems that I will assign in the course. The current pricing for a 6 month license is $45 for Stata/IC. For more detail and to order Stata online see the GradPlan website indicted below.
http://www.stata.com/order/new/edu/gradplans/student-pricing/

We won't devote much class time to learning how to use this software. I will provide a guide to get you started with the software if you did not take Introduction to Econometrics, but it is expected that you will spend time to learn the basics on your own.

Grading

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

Course Component	Percentages
In class assignments	40
Problem Sets	15
Midterm 1	15
Midterm 2	15
Midterm 3	15
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.

UH CAPS Statement
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 someone 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.htm

Course Policies

The material we will be covering is difficult. You will probably read the papers more than once to understand the readings. Don't fall behind, and make sure to ask me for help when you don't understand a concept. I am here to help!

You may work on problem sets with other students in a study group, but each student must write out and hand in his or her own answers. If you work in a study group, you must also write the names of the other students in your group at the beginning of your answers.

Answers to both homework and exam questions will be graded not only on the correctness of the answer, but also on the clarity of the explanation. Answers with a correct answer alone will not receive full credit. Complete and logically consistent answers are needed to receive full credit.

I don't negotiate about grades - ever. There is no curve for the class. Your grades will be based on the syllabus.

Come prepared - do the readings beforehand. Not all material will be available on Blackboard or in your textbook. Part of the class requirement is to be familiar with the use of library resources. You will need to learn how to use UH Online library resources and access the assigned papers.

You will read current research papers in economics, including some top notch empirical papers. You will not understand everything in these papers, nor will I expect you to. The extent to which you need to know the assigned papers will be made clear during the lectures.

Adhere to the university's academic honesty policy (it is described in the Student Handbook as well as http://www.uh.edu/academics/catalog/policies/academ-reg/academic-honesty/).

If you have special learning needs, please contact me in the first two weeks of classes.

I prefer office hours to emails.

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.

Class #	Date/Day			Topic	Problem Sets
1	August	20	T	Welcome to IO! Introduction and syllabus	
2		22	Th	Competition (Review) Monopoly (Review) Welfare: Perfect Competition vs. Monopoly	
3		27	T	Borenstein, Severin (1990): "Airline Mergers, Airport Dominance, and Market Power," *AEA Papers and Proceedings*, 400-404. U.S. Grounds Big Air Merger --- Antitrust Regulators Say American-US Airways Deal Would Hurt Consumers, *The Wall Street Journal*, 14 Aug 2013*	
4		29	Th	Cournot model Airline pricing B. C. Smith, J. F. Leimkuhler and R. M. Darrow (1992): "Yield Management at American Airlines," *Interfaces* 22, 8-31.	
5	September	3	T	STATA – How to produce graphs	
6		5	Th	Hay, G. A .and D. Kelley (1974): "An Empirical Survey of Price Fixing Conspiracies," *Journal of Law and Economics*, 17(1), 13-38.	PS 1 Due
7		10	T	Bajari, P. and L. Ye (2003): "Deciding between competition and collusion," *The Review of Economics and Statistics*, 85(4), 971–989. Bajari, P. and G. Summers (2002): "Detecting Collusion in Procurement Auctions," *Antitrust Law Journal*, 70(1) 143-170.	

8		12	Th	B. J. Alexander (1997): "Mechanisms for rent transfers: Subcontracting among military aircraft manufacturers," *Public Choice*, 91, 251-269. Froeb, L. M, R. A. Koyak, and G. J. Werden (1993): "What is the effect of bid-rigging on prices?" *Economics Letters*, 42, 419-423. Davies, S. and O. De (2013): "Ringleaders in Larger Number of Asymmetric Cartels," *The Economic Journal*, 123, 524-544. Ishii, R. (2014): "Bid Roundness Under Collusion in Japanese Procurement Auctions", *Review of Industrial Organization*, 44, 241–254.	
9		17	T	PS 1/2 Discussion / Midterm I review	PS 2 Due
10		19	Th	**Midterm I**	
11		24	T	Product Differentiation, The effect of differentiated products on competition	
12		26	Th	Conducting empirical research, practical considerations	
13	October	1	T	Petrin A. (2002): "Quantifying the Benefits of New Products: The Case of the Minivan", *Journal of Political Economy*, 110, 705-729.	
14		3	Th	Estimating cereal demand – an application	
15		8	T	Goeree ,M.S. (2008): "Limited Information and Advertising in the US Personal Computer Industry," *Econometrica*, 76(5), 1017–1074.	
16		10	Th	Leung, T.C. (2013): "What is the True Loss Due to Piracy? Evidence from Microsoft Office in Hong Kong," *The Review of Economics and Statistics*, 95(3): 1018–1029	PS 3 Due
17		15	T	A. Szabo and V. Pham (2019): "Net Neutrality and Consumer Demand in the Video On-demand Market," WP, Download from Blackboard	
18		17	Th	Estimating willingness to pay – an application	
19		22	T	PS 3/4 Discussion / Midterm II review	PS 4 Due
20		24	Th	**Midterm II**	
21		29	T	Price discrimination, 3rd degree price discrimination, 2nd degree price discrimination	
22		31	Th	Stefano DellaVigna and Matthew Gentzkow (2017): "Uniform Pricing in US Retail Chains", WP, Download it from Blackboard.	
23	November	5	T	Grocery store pricing: an application	

24		7	Th	Pricing for public utilities S. Borenstein (2012): "The Redistributional Impact of Nonlinear Electricity Pricing," *American Economic Journal: Economic Policy*, 4(3): 56–90	PS 5 Due
25		12	T	Mansur, E. T. and S. M. Olmstead (2012): "The Value of Scarce Water: Measuring the Inefficiency of Municipal Regulations," *Journal of Urban Economics*, 71(3), 332-346.	
26		14	Th	Szabo, A. (2015): "The Value of Free Water: Analyzing South Africa's Free Basic Water Policy, *Econometrica*, 83(5), 1913–1961.	
27		19	T	Current topics in IO / Cath up	
28		21	Th	PS 5/6 Discussion / Midterm III Review	PS 6 Due
29		26	T	**Midterm III**	