



THE UNIVERSITY OF TEXAS AT AUSTIN

**ECO 395K: INDUSTRIAL ORGANIZATION**  
**(34025-34030)**

**Spring, 2024**

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**Description:** This is a course in Industrial Organization that covers the way markets are configured, how many firms exist, how they relate to each other, and how this interaction affects production, pricing, investment, advertising, and other managerial decisions. This is an advanced course that covers both theory and introduces students to practical methods commonly used in consulting and antitrust enforcement. Although we cover some econometric methods this is, mostly, an applied theory course.

We read and discuss many real antitrust cases to motivate the material that we then cover more in depth. Institutional knowledge (in addition to math and econometrics) is very important in industrial organization and by the end of the semester students should have become familiar with some of the most significant decisions that have shaped policy towards large (and small) firms in the U.S.

For those looking for a career in consulting, knowledge of cases and how theory is implemented in practice is invaluable. The same goes for those pursuing an academic career, which in IO requires to blend your knowledge of methods with institutions and policies in the real world. The most effective way to develop an interesting research agenda in industrial organization is to study the effect of some policy or regulation on a particular industry and then use your theory/econometric toolbox to produce solid research papers. Structural econometrics that you will learn in your Ph.D. will allow you to evaluate counterfactuals, i.e., the hypothetical behavior of a market under different conditions, what lawyers call the but-for-world.

Hopefully, this course will provide a robust first approximation to an exciting area of applied research (with tons of professional opportunities).

**Lectures:** Tuesdays and Thursdays, from 14:00 to 15:30 in BRB 1.118.

**Office Hours:** Thursdays, from 9:00 to 12:00 at BRB 3.314A. If you need to meet via Zoom, please send me an e-mail in advance to schedule the meeting during this time frame. I rarely use the e-mail at CANVAS so please write to my regular e-mail at [eugenio@utexas.edu](mailto:eugenio@utexas.edu).

**T.A.:** Nathan C. Hattersley, [nhattersley@utexas.edu](mailto:nhattersley@utexas.edu); Office Hours: Thursdays from 12:00 to 14:00 in BRB 3.146.

**Textbooks:**

*The Theory of Industrial Organization*, by Jean Tirole, MIT Press, 1989. (Required)

*Quantitative Techniques for Competition and Antitrust Analysis*, by Peter Davis and Eliana Garcés, Princeton University Press, 2010. (Recommended)

*The Antitrust Revolution*, by J. Kwoka and L. White, Oxford University Press, 6<sup>th</sup> Edition, 2014; and 7<sup>th</sup> Edition, 2019.

Instead of buying several editions of the Kwoka-White book, you should purchase the course packet at the UT McCombs Copy Center or through UT Line Store (<https://utlinestore.utexas.edu/>) by typing my name or the course number in the search tool bar. The packet includes all cases that we will discuss in class. If there are any issues with this packet, please contact Melissa Lopez at [melissa.lopez@austin.utexas.edu](mailto:melissa.lopez@austin.utexas.edu) at the UT Copy Center.

**Outline of the Course:** The main topics covered in this course are the following (approximately one per week) – This is just an intended schedule. It is subject to change depending on how effective we are in covering each topic:

- Week 01 – Introduction to Antitrust.
- Week 02 – Tirole (1): Monopoly.
- Week 03 – Tirole (2): Product Selection, Quality, and Advertising – KW7: LCD – KW7: Microsoft.
- Week 04 – Davis (4): Market Definition – KW6: Oracle. – KW6: Evanston Northwestern.
- Week 05 – Tirole (3): Price Discrimination – KW4: Brand Name Prescription Drugs.
- Week 06 – Tirole (4): Vertical Control – KW7: Tesla – KW6: Leegin.
- Week 07 – Tirole (5): Short-Run Price Competition – KW4: Airline Tariffs.
- Week 08 – Tirole (6): Long-Run Price Competition – KW7: Ebooks.
- Week 09 – Davis (6): Identification of Conduct – KW7: Hertz.
- Week 10 – Tirole (7): Product Differentiation – KW7: Dental Examiners.
- Week 11 – Tirole (8): Entry, Accommodation, and Exit – KW7: Spirit Airlines.
- Week 12 – Davis (5): Market Structure and Price – KW7: Staples. – LEAVE STAPLES CASE ONLY
- Week 13 – Davis (7): Damage Simulations – KW6: Lysine.
- Week 14 – Davis (8): Merger Simulations – KW6: Delta-Northwest.

**Teaching Approach:** The typical unit begins with the discussion of one antitrust case. Once we cover the student presentation, I move on to study some of the underlying theoretical issues in detail. Each topic should take approximately a week.

I prepare presentations of every topic and I (generally) post them prior to covering them in class. Please check CANVAS regularly. I post all the course materials there. It is advisable that students read the assigned material ahead of time, particularly as you attempt the problems in the text of Tirole's book.

Although this course will be taught in person, we might sporadically use remote instruction due to scheduling conflicts or depending on the evolution of the UT health guidance.

**Case Presentations:** Depending on the number of registered students, one or two students will prepare a few slides to summarize and present an antitrust case in class. I will allocate cases randomly during the second week of the semester. If two of you are assigned to the same case, you should coordinate in writing the slides and presenting it.

You can split your roles as you wish. Both of you will get the same mark for your joint work. All of you will receive feedback from me by the end of the semester explaining your score.

Take these presentations as an opportunity to learn many institutional issues surrounding antitrust. Do some research but do not anticipate every single theoretical argument that I will likely cover later in class. Cases are sometimes only loosely related to the topic at hand. This is the result of a mismatch between the interests of academic economists and the antitrust practice. Sometimes we have several cases related to a particular topic while for others, it is difficult to find a case that aligns well with the formal theoretical analysis.

You should prepare your slides and send them to me by 9:00 am on the day of your presentation. I will make them available to your classmates before class so that they can follow the material. Aim for a presentation between 15-20 minutes and no more than 10-15 slides. Tell us the story of the case and why it was investigated. Detail the arguments of the different parties and explain their economic rationale. Conclude with the final decision AND a personal opinion of what you think you learned in terms of the economics of the case.

Presentations should be in person. I encourage active participation by the audience to challenge the presenters.

**Homework:** There are several problems sets, approximately every three weeks. Here you are going to solidify your knowledge of theory in relation to actual industry problems. I assign short problem sets from Tirole's book aimed for students to learn the material more in depth. You should attempt problems in groups of up to four students. You will submit only one set of solutions per group and all students will receive the same grade. Start looking for partners and do not think that you can do it all by yourself. These problems are demanding but will help you learn and assimilate the material covered in class. You should have between one and two weeks to complete each assignment, which are due always at the beginning of the lecture (via Gradescope). No late assignments will be accepted.

Approximate Homework Due Day Schedule:

1. Tu., February 6<sup>th</sup>.
2. Tu., February 27<sup>th</sup>.
3. Tu., March 26<sup>th</sup>.
4. Tu., April 9<sup>th</sup>.
5. Th., April 25<sup>th</sup>.

Please, submit pdf files with your assignments through Gradescope. You do not need to type your assignments unless you want to. Feel free to submit pdf copies of your handwritten assignments if you prefer. Simply scan (one copy per group) using a phone app such as ClearScanner (or whatever else is easier for you to generate pdf copies).

**Quizzes:** There are three, in class, short exams scheduled for February 8<sup>th</sup>, March 24<sup>th</sup>, and April 11<sup>th</sup>. These short exams are very applied and aimed to test your understanding of the material. It is NOT mad of rehashed, hard, Tirole's questions. The exams are open book / open notes. However, you are not allowed to use any assistance from any other person or the internet (including but not limited to search engines). There will be no make-up dates.

**Essay:** A short essay (no more than 2,500 words, about 5 pages) on a common topic to be discussed during the first lecture. The idea here is that you learn about a current policy discussion, do some independent research, and write a critical assessment on the topic using the tools we have covered in class to support your opinion. There is no specific format for this project, but you should include a 200-word Executive Summary on the first page as well as the word count of your document as reported by <https://docwordcounter.com>. You should submit your essay through Gradescope no later than by the beginning of the last day of class (but you can do it earlier too!). I will provide feedback on your score.

**Participation:** I encourage you to attend lectures and participate actively. Do not hesitate to ask any questions you may have. Class participation will be considered towards the final grade.

**Grading:** Problem sets 40%; case presentation 15%; exams 25%; essay 15%; participation 5%. I will use plus/minus grade categories when assigning final grades (i.e. A, A-, B+, B, B-,... F). Grades will be curved, meaning that your letter grade will be assigned based on your weighted average course score and your performance relative to the rest of the class.

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**Gradescope:** I use Gradescope (<http://gradescope.com/>) for all exams and assignments. You need to have an account with Gradescope to log in. If you have not used Gradescope before, I suggest you give it a try as soon as possible to familiarize yourself with it.

**No Electronics Policy:** I allow for the use of laptops and ipads *exclusively* as support for this class (following cases, slides, etc). The use of phones is not allowed in class. Not observing this policy during class will affect your participation grade negatively.

**Honor Code:** The core values of the University of Texas at Austin are learning, discovery, freedom, leadership, individual opportunity, and responsibility. Each member of the university is expected to uphold these values through integrity, honesty, trust, fairness, and respect towards peers and community. Suspicion of improper behavior will be reported to Student Judicial Services.

To inquire about the University Code of Conduct and Student Honor Code, please visit the website of the Office of the Dean of Students at: <https://deanofstudents.utexas.edu/conduct/standardsconduct.php>.

**ADA Notice.** Students with a documented disability have the right to request appropriate academic accommodations from the Division of Diversity and Community Engagement, Services for Students with Disabilities (SSD) at <http://ddce.utexas.edu/disability/about/>.

**Senate Bill 212 and Title IX Reporting Requirements.** Under Senate Bill 212 (SB 212), the professor and TAs for this course are required to report for further investigation any information concerning incidents of sexual harassment, sexual assault, dating violence, and stalking committed by or against a UT student or employee. Federal law and university policy also require reporting incidents of sex- and gender-based discrimination and sexual misconduct (collectively known as Title IX incidents). This means we cannot keep confidential information about any such incidents that you share with us. If you need to talk with someone who can maintain confidentiality, please contact University Health Services (512-471-4955 or 512-475-6877) or the UT Counseling and Mental Health Center (512-471-3515 or 512-471-2255). We strongly urge you make use of these services for any needed support and that you report any Title IX incidents to the [Title IX Office](#).

**Sharing of Course Materials is Prohibited.** No materials used in this class, including, but not limited to, lecture hand-outs, videos, assessments (quizzes, exams, papers, projects, homework assignments), in-class materials, review sheets, and additional problem sets, may be shared online or with anyone outside of the class (or in future classes) unless you have my explicit, written permission. Unauthorized sharing of materials promotes cheating. It is a violation of the University's Student Honor Code and an act of academic dishonesty. I am aware of the sites used for sharing materials, and any materials found online that are associated with you, or any suspected unauthorized sharing of materials, will be reported to Student Conduct and Academic Integrity in the Office of the Dean of Students. These reports can result in sanctions, including failure in the course.

## Antitrust Cases:

Below are the readings of Kwoka and White. KW7 indicates that the chapter is included in the seventh edition. All others are referred to the latest edition where they appear.

### Introduction to Antitrust

1. K.B. Leffler and C.J. Santesteban: *"The LCD Conspiracy: The Sherman Act, Beyond a Reasonable Doubt, and Issues of Extraterritoriality"* (2014) – KW7, pp. 312-330.
2. D.L. Rubinfeld: *"Maintenance of Monopoly: U.S. v. Microsoft"* (2001) – KW7, pp. 514-534.

### Market Definition

3. R.P. McAfee, D.S. Sibley, and M.A. Williams: *"Oracle's Acquisition of PeopleSoft: U.S. v. Oracle"* (2004) – KW6, pp. 144-165.
4. D. Haas-Wilson: *"Revisiting a Merger: FTC v. Evanston Northwestern Healthcare"* (2007) – KW6, pp. 117-143.

### Price Discrimination

5. K.G. Elzinga and D.E. Mills: *"The Brand Name Prescription Drugs Antitrust Litigation"* (1999) – KW4, pp. 301-320.

### Vertical Control

6. F.S. Morton and A. McDermott: *"Retail Auto Sales: Tesla v. State Vehicle Franchise Laws"* (2017) – KW7, pp. 401-422.
7. K.G. Elzinga and D.E. Mills: *"Resale Price Maintenance Wins a Reprieve: Leegin v. PSKS"* (2007) – KW6, pp. 435-457.

### Short-Run Price Competition

8. S. Borenstein: *"The Airline Tariffs Publishing Case"* (1994) – KW4, pp. 233-251.

### Long-Run Price Competition

9. J.B. Baker: *"The Ebooks Case against Apple"* (2013) – KW7, pp. 471-488.

### Identification of Conduct

10. M.J. Doane, L.M. Froeb, G.J. Werden, D.M. Zimmer: *"Hertz—Dollar Thrifty: Fixing a Merger to Avoid Litigation"* (2012) – KW7, pp. 87-102.

### Product Differentiation

11. J.E. Kwoka, Jr.: *"Agreeing to Exclude: North Carolina State Board of Dental Examiners"* (2015) – KW7, pp. 250-268.

### Entry, Accommodation, and Exit

12. K.G. Elzinga and D.E. Mills: *"Predatory Pricing in the Airline Industry: Spirit Airlines v. Northwest Airlines"* (2005) – KW7, pp. 354-400.

### Market Structure and Price

13. S. Dalkir and F.R. Warren-Boulton: *"Prices, Market Definition, and the Effects of Merger: Staples, Office Depot, and Office Max"* (1997, 2015, and 2016) – KW7, pp. 189-210.

### Damage Simulations

14. J.M. Connor: *Global Cartels Redux: "The Lysine Antitrust Litigation"* (1996) – KW6, pp. 336-368.

### Merger Simulations

15. M. Israel, B. Keating, D.L. Rubinfeld, and R.D. Willig: *"The Delta—Northwest Merger: Consumer Benefits from Airline Network Effects"* (2008) – KW6, pp. 576-601.

### Antitrust Cases Timetable:

The following is an approximate schedule only.

1. K.B. Leffler and C.J. Santesteban: “LCD” Tu: January 30 – Student name(s).
2. D.L. Rubinfeld: “Microsoft” Th: February 1 – Student name(s).
3. R.P. McAfee, D.S. Sibley, and M.A. Williams: “Oracle” Tu: February 6 – Student name(s).
4. D. Haas-Wilson: “Evanston Northwestern” Tu: February 13 – Student name(s).
5. K.G. Elzinga and D.E. Mills: “Brand Name Prescription Drugs” Tu: February 15 – Student name(s).
6. F.S. Morton and A. McDermott: “Tesla” Tu: February 20 – Student name(s).
7. K.G. Elzinga and D.E. Mills: “Leegin” Th: February 22 – Student name(s).
8. S. Borenstein: “Airline Tariffs” Tu: February 27 – Student name(s).
9. J.B. Baker: “Ebooks” Tu: March 5 – Student name(s).
10. M.J. Doane, L.M. Froeb, G.J. Werden, D.M. Zimmer: “Hertz” Tu: March 19 – Student name(s).
11. J.E. Kwoka, Jr.: “Dental Examiners” Tu: March 26 – Student name(s).
12. K.G. Elzinga and D.E. Mills: “Spirit Airlines” Tu: April 2 – Student name(s).
13. S. Dalkir and F.R. Warren-Boulton: “Staples” Tu: April 9 – Student name(s).
14. J.M. Connor: Global Cartels Redux: “Lysine” Tu: April 16 – Student name(s).
15. M. Israel, B. Keating, D.L. Rubinfeld, and R.D. Willig: “Delta—Northwest” Tu: April 23 – Student name(s).