

## **ECON4313-001 Industrial Organization**

University of Oklahoma, Fall 2024

T/R, 1:30-2:45pm, Cate Center CCD1 237

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| <b>Instructor:</b>     | Dr. Qihong Liu  | <b>E-mail:</b> qliu@ou.edu |
| <b>Office:</b>         | Cate Center 1, Room 426                                   |                            |
| <b>Office Hours:</b>   | T/R, 3-4pm and by appointment                             |                            |
| <b>Course Website:</b> | <a href="https://canvas.ou.edu">https://canvas.ou.edu</a> |                            |
| <b>TA</b>              | Nikkie Gao, CCD1 Room 236, gao0012@ou.edu                 |                            |
| <b>TA Office Hours</b> | Wednesday, 10-11am and by appointment                     |                            |

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### **Course Description**

Industrial organization studies the functioning of markets, focusing on imperfectly competitive markets. We will study the causes and consequences of firms' strategic behavior in such markets, as well as the role of public policies. Our main analytical tools will be microeconomics and game theory. We will complement our theoretical work with empirical evidence from academic research and the popular press, and analyze how the industrial organization theories work in action.

The topics we will study include: pricing strategies (price discrimination, big data and algorithmic pricing, bundling and tie-in sales); competition in static and dynamic settings; collusion and cartels; horizontal mergers; vertical relationships and recent developments involving tech giants (FAAG). Within each topic we will consider the impact of firms' actions on consumer welfare. We will also consider the role of public policies, particularly the US antitrust laws which try to create a balance between the benefits of coordination and consolidation and the detriments of market power. We will discuss various actual antitrust cases relating to the topics we cover, with a few classes devoted to selected cases.

Prerequisite: ECON1113, ECON1123 with a grade of C or better.

### **Assessment**

Your grade will be based on participation (10%)<sup>1</sup>, case debates (20%), 3 exams (lowest for 10%, 20% for the other two, 50% total) and presentation of a project studying

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<sup>1</sup>Participation is a good citizenship grade — if you are considerate of your classmates in class and are well prepared before interacting with me then you will get the full 10%.

competition and market performance in a particular industry (20%). Letter grades will be assigned following the schedule (A: 90 and above; B: 80 ~ 90; C: 70 ~ 80; D: 60 ~ 70; F: < 60).

Midterms will be given during class time and the final will be given at the University designated time. More details about case discussion and project presentation will be laid out later. Problem sets will be assigned on a regular basis. They will not be collected but I strongly recommend that you work on the problem sets. Similar skills are required to answer the exams as to answer the problems sets.

## Textbooks

Recommended: (1) *Industrial Organization: Contemporary Theory and Practice* by Lynne Pepall, Dan Richards, and George Norman, 5th Edition, Blackwell Publishing.

(2) *Antitrust Revolution* by John E. Kwoka, Jr. and Lawrence White, 7th Edition, Oxford University Press.

## Readings

The course outline at the end of the syllabus lists the sections in the textbook which we will cover. The textbook provides important background information and motivation for the topics we will cover, and includes numerous real world examples and applications. It is beneficial for you to read the assigned chapter **before** coming to class to get an overview of what's contained in the chapter.

Additional readings will be listed throughout the semester. In particular, for each chapter, I have assembled a set of *Wall Street Journal* articles as well as questions usually based on 1-2 of these articles. It is important that you learn and practice how to apply the tools and knowledge that you learned in class to these real world problems and applications. Similar skills are required in the tests.

## Important Dates

Exam 1 - Thursday, September 26

Exam 2 - Tuesday, October 22

Final - Tuesday, December 10, 1:30 -2:45pm\*

December 6 is the last day for Grade of W on Complete Withdrawal

December 5 is the last day of class

## Canvas

I will use Canvas, in conjunction with e-mails, to distribute lecture outlines, readings, problem sets, etc. I will also post grades on Canvas. Please verify that you can log on to Canvas and access the information for this class.

### **Class Attendance**

You are expected to attend every class and are responsible for all material and announcements. The exams will be based largely on class discussions, so it is in your best interest to attend. As an added incentive, I will periodically take attendance and assign up to 2 bonus points. It is your responsibility to inform me in a timely manner of any extended absence that is necessary for medical or other reasons. Please arrive to class on time. Entering after a lecture has begun is distracting to your classmates and to me, and you should avoid it as a courtesy. If you arrive late, please enter the room quietly and sit near the door. In order to avoid unnecessary distractions, all cellular telephones are required to be turned off while in the classroom. This includes the time immediately before and after the class ends.

### **Tentative Outline**

PRN=Pepall, Richards and Norman. You are not responsible for sections of PRN which we do not discuss in class. Approximate number of lectures to cover each chapter is listed in parenthesis.

1. Introduction. PRN 1 (1).
2. Review of perfect competition and monopoly. PRN 2.1, 2.3.1 (2).
3. Market structure and market power. PRN 3.1-3.2 (2).

Case #1: The Aetna-Humana Proposed Merger (2017)

4. Monopoly product and pricing strategies (4).
  - (i) Price discrimination: Incentive, type and feasibility. PRN 5.1.
  - (ii) Third-degree price discrimination. PRN 5.2, 5.3 and 5.5.
  - (iii) First-degree price discrimination. PRN 6.1, 6.3.
  - (iv) Second-degree price discrimination. PRN 6.2, 6.3.
- (v) Recent developments.
- (vi) Bundling and tie-in sales. PRN 8.1, 8.2 and 8.4.

Case #2: LePage's v. 3M (2003)

*Exam 1 approximately here.*

5. Game theory: Basic concepts. PRN 9.1-9.3 (1).
6. Oligopoly markets (2).
  - (i) Cournot competition. PRN 9.4-9.5, 10.4.
  - (ii) Bertrand competition. PRN 10.1, 10.2, 10.4.
7. Dynamic games and competition (2).
  - (i) The Stackelberg competition. PRN 11.1.
  - (ii) Sequential price competition. PRN 11.2.
  - (iii) Credibility of threats and subgame perfect Nash equilibrium. PRN 11.3.

*Exam 2 approximately here.*

8. Price-fixing, repeated games, and collusion. PRN 14.1, 14.2 and 15.2 (2).

Case #3: Antitrust and Higher Education: MIT Financial Aid (1993)

9. Horizontal mergers. PRN 16.1, 16.4.1 and 16.5 (1).

10. Vertical relationships. PRN 17.1-17.2. (3).

Case #4 (TBD): The Ebooks Case against Apple (2013)

OR

Antitrust Cases against Google, Facebook and Others

*Final exam.*

## University Policies

### Mental Health Support Services

Support is available for any student experiencing mental health issues that are impacting their academic success. Students can either be seen at the University Counseling Center (UCC) located on the second floor of Goddard Health Center or receive 24/7/365 crisis support from a licensed mental health provider through TELUS Health. To schedule an appointment or receive more information about mental health resources at OU please call the UCC at 405-325-2911 or visit University Counseling Center. The UCC is located at 620 Elm Ave., Room 201, Norman, OK 73019.

### Title IX Resources and Reporting Requirement

The University of Oklahoma faculty are committed to creating a safe learning environment for all members of our community, free from gender and sex-based discrimination,

including sexual harassment, domestic and dating violence, sexual assault, and stalking, in accordance with Title IX. There are resources available to those impacted, including: speaking with someone confidentially about your options, medical attention, counseling, reporting, academic support, and safety plans. If you have (or someone you know has) experienced any form of sex or gender-based discrimination or violence and wish to speak with someone confidentially, please contact OU Advocates (available 24/7 at 405-615-0013) or University Counseling Center (M-F 8 a.m. to 5 p.m. at 405-325-2911). Because the University of Oklahoma is committed to the safety of you and other students, and because of our Title IX obligations, I, as well as other faculty, Graduate Assistants, and Teaching Assistants, are mandatory reporters. This means that we are obligated to report gender-based violence that has been disclosed to us to the Institutional Equity Office. This means that we are obligated to report gender-based violence that has been disclosed to us to the Institutional Equity Office. This includes disclosures that occur in: class discussion, writing assignments, discussion boards, emails and during Student/Office Hours. You may also choose to report directly to the Institutional Equity Office. After a report is filed, the Title IX Coordinator will reach out to provide resources, support, and information and the reported information will remain private. For more information regarding the University's Title IX Grievance procedures, reporting, or support measures, please visit Institutional Equity Office at 405-325-3546.

#### Reasonable Accommodation Policy

The University of Oklahoma (OU) is committed to the goal of achieving equal educational opportunity and full educational participation for students with disabilities. If you have already established reasonable accommodations with the Accessibility and Disability Resource Center (ADRC), please submit your semester accommodation request through the ADRC as soon as possible and contact me privately, so that we have adequate time to arrange your approved academic accommodations. If you have not yet established services through ADRC, but have a documented disability and require accommodations, please complete ADRC's pre-registration form to begin the registration process. ADRC facilitates the interactive process that establishes reasonable accommodations for students at OU. For more information on ADRC registration procedures, please review their Register with the ADRC web page. You may also contact them at (405)325-3852 or [adrc@ou.edu](mailto:adrc@ou.edu), or visit [www.ou.edu/adrc](http://www.ou.edu/adrc) for more information.

Note: disabilities may include, but are not limited to, mental health, chronic health, physical, vision, hearing, learning and attention disabilities, pregnancy-related. ADRC

can also support students experiencing temporary medical conditions.

#### Religious Observance

It is the policy of the University to excuse the absences of students that result from religious observances and to reschedule examinations and additional required classwork that may fall on religious holidays, without penalty. [See Faculty Handbook 3.15.2]

#### Adjustments for Pregnancy/Childbirth Related Issues

Should you need modifications or adjustments to your course requirements because of documented pregnancy-related or childbirth-related issues, please contact the Accessibility and Disability Resource Center at 405/325-3852 and/or the Institutional Equity Office at 405/325-3546 as soon as possible. Also, see the Institutional Equity Office FAQ on Pregnant and Parenting Students' Rights for answers to commonly asked questions.

#### Final Exam Preparation Period

Pre-finals week will be defined as the seven calendar days before the first day of finals. Faculty may cover new course material throughout this week. For specific provisions of the policy please refer to OU's Final Exam Preparation Period policy.

#### Emergency Protocol

During an emergency, there are official university procedures that will maximize your safety.

Severe Weather: If you receive an OU Alert to seek refuge or hear a tornado siren that signals severe weather.

1. Look for severe weather refuge location maps located inside most OU buildings near the entrances.
2. Seek refuge inside a building. Do not leave one building to seek shelter in another building that you deem safer. If outside, get into the nearest building.
3. Go to the building's severe weather refuge location. If you do not know where that is, go to the lowest level possible and seek refuge in an innermost room. Avoid outside doors and windows.
4. Get in, Get Down, Cover Up
5. Wait for official notice to resume normal activities.

Additional Weather Safety Information is available through the Department of Campus Safety.

#### The University of Oklahoma Active Threat Guidance

The University of Oklahoma embraces a Run, Hide, Fight strategy for active threats on campus. This strategy is well known, widely accepted, and proven to save lives. To receive emergency campus alerts, be sure to update your contact information and preferences in the account settings section at [one.ou.edu](http://one.ou.edu).

**RUN:** Running away from the threat is usually the best option. If it is safe to run, run as far away from the threat as possible. Call 911 when you are in a safe location and let them know from which OU campus you're calling from and location of active threat.

**HIDE:** If running is not practical, the next best option is to hide. Lock and barricade all doors; turn off all lights; turn down your phone's volume; search for improvised weapons; hide behind solid objects and walls; and hide yourself completely and stay quiet. Remain in place until law enforcement arrives. Be patient and remain hidden.

**FIGHT:** If you are unable to run or hide, the last best option is to fight. Have one or more improvised weapons with you and be prepared to attack. Attack them when they are least expecting it and hit them where it hurts most: the face (specifically eyes, nose, and ears), the throat, the diaphragm (solar plexus), and the groin.

Please save OUPD's contact information in your phone.

NORMAN campus: For non-emergencies call (405) 325-1717. For emergencies call (405) 325-1911 or dial 911.

TULSA campus: For non-emergencies call (918) 660-3900. For emergencies call (918) 660-3333 or dial 911.

### Fire Alarm/General Emergency

If you receive an OU Alert that there is danger inside or near the building, or the fire alarm inside the building activates:

1. LEAVE the building. Do not use the elevators.
2. KNOW at least two building exits
3. ASSIST those that may need help
4. PROCEED to the emergency assembly area
5. ONCE safely outside, NOTIFY first responders of anyone that may still be inside building due to mobility issues.
6. WAIT for official notice before attempting to re-enter the building. OU Fire Safety on Campus