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| ECON 590 Industrial Organization | Course |
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Credits: 4 graduate hours

Semester: Spring 2026

Meeting Times: MW 9:30AM-10:50AM in 317 David Kinley Hall

Instructor: Professor Seung-Hyun Hong

Email: hyunhong@illinois.edu

Office Hours: MW 2:00PM-3:00PM in 118 David Kinley Hall or by appointment

Course Description

This course analyzes firm strategies and public policy issues in industrial organization, focusing more on digital economy and related industries. The analysis applies economic tools and principles, including game theory, industrial organization, and information economics. Topics include: differentiation of prices and products; search cost and price dispersion; network effects and system competition; economics of information.

Prerequisites

Econ 302 (Intermediate Micro Theory) or the equivalent; Math 220/221 or Calculus I equivalent.

Learning Outcomes

- **Analytical Skills/Problem-Solving:** ECON students will effectively visualize, conceptualize, articulate, and solve complex problems or address problems that do not have a clear answer, with available information, through experimentation and observation, using microeconomic and macroeconomic theory, as well as calculus and statistical tools.
- **Critical Thinking:** ECON students will apply economic analysis to everyday problems helping them to understand events, evaluate specific policy proposals, compare arguments with different conclusions to a specific issue or problem, and assess the role played by assumptions in arguments that reach different conclusions to a specific economic or policy problem.
- **Specialized Knowledge and Practical Application:** ECON students will develop deeper analytical, critical, and quantitative skills in specialized areas by applying economic concepts to real world situations.

Learning Resources

Mostly, class slides. **The course does not have a required textbook.** Some of chapters from the following textbook will be suggested to supplement class materials:

- R. Preston McAfee, Tracy R. Lewis, and Donald J. Dale, *Introduction to Economic Analysis*. Free download: https://my.uopeople.edu/pluginfile.php/57436/mod_book/chapter/37625/ECON1580RecommendedTextbook.pdf
- Jeffrey R. Church and Roger Ware, *Industrial Organization: A Strategic Approach*. Free download available: https://ijgids.wordpress.com/wp-content/uploads/2011/02/indorg_strapproach.pdf

The following article by Hal Varian (formerly at UC Berkeley, and currently the chief economist at Google) provides broad frameworks to look at economics of digital economy, so you should read: “Economics of Information Technology”, 2001, Mattioli Lectures. You can download it from the following URL:

<https://people.ischool.berkeley.edu/~hal/Papers/mattioli/mattioli.pdf>

Some other articles will be also suggested for readings. They will be updated on Canvas.

Course Outline

Note: Suggested sections from the Church and Ware textbook (CW) and the textbook by McAfee, et al (M) are in parentheses. Relevant articles for some topics are included below. More articles will be also suggested for readings. They will be updated on Canvas.

1. Simple pricing: monopoly, competitive markets (CW: 2; M: 15)

2. Game theory (CW: 7; M: 16)

3. Personalized pricing, market segmentation (CW: 5; M: 15)

4. Bundling (CW: 5)

Class discussion on bundling: read two short articles on different bundling practices.

5. Nonlinear pricing (CW: 5; M: 15)

Class discussion on data mining: read a short article on a case study related to business data mining practices.

6. Conditioning prices on purchase history

Acquisti, A. and Varian, H. 2005. “Conditioning Prices on Purchase History”, *Marketing Science*, 24:3, pp. 367-381. You can download it from <https://people.ischool.berkeley.edu/~hal/Papers/privacy.pdf>

7. Versioning

Varian, H. 1997. “Versioning Information Goods”. You can download it from <https://people.ischool.berkeley.edu/~hal/Papers/version.pdf>

8. Economics of information (CW: 6; M: 18)

Class discussion on information economics: read a short article on E-commerce.

9. Network effects

Katz, M. and Shapiro, C. 1994. “System Competition and Network Effects.” *The Journal of Economic Perspectives*, Vol.8, No. 2, pp. 93-115.

Class discussion on network effects: read a short article on a case study related to network effects.

10. System competitions

Besen, S. and Farrell, J. 1994. “Choosing How to Compete: Strategies and Tactics in Standardization.” *The Journal of Economic Perspectives*, Vol.8, No. 2, pp. 117-131.

11. Platforms

Eisenmann, T., Parker, G., and Van Alstyne, M. 2006, “Strategies for Two-Sided Markets”, *Harvard Business Review*. You can access this article from UIUC Online collection via EBSCOhost.

Class discussion on two-sided markets: read a short article on two-sided markets.

Student Assessment

Scoring

- Short Class Presentation: 100 Total Points (including 50 points evaluated by other students in class)
- Final Class Presentation: 300 Total Points (including 200 points evaluated by other students in class)
- Class Discussion: 200 Total Points (+ extra points if you earn more than 100 points)
- Short Quizzes in Class: 400 Total Points (there will be many quizzes, using Canvas quizzes)

The final grade for the class will be scored out of 1,000 points, and it will be determined relative to the distribution of total scores.

Course Policies

Class Presentation Policy: Every student needs to present twice as follows.

Short class presentation (likely on March 11): Each student will be given a different topic (but these topics will be all related). You need to email me your presentation slides two days before your presentation.

Final class presentation (likely on May 4, 6): Each student will choose their own topic. You need my approval before working on your project. You need to email me your presentation slides two days before the first presentation of any student.

Student evaluation: Your presentations will be evaluated by your classmates who attend your presentations.

Short Class Quiz Policy: There will be many short quizzes during class. Their points will vary. You should expect short quizzes every class, except for the first week and possibly the second week, as well as presentation days and case study discussion days.

They are mostly numerical exercises related to the course topics discussed on the same day. If you come to class and pay attention to the lecture, you should be able to solve them, since the main reason for these quizzes is to make sure that you come to class and pay attention to the lecture. You can receive up to 400 points for quizzes, though total points of all quizzes will exceed 400, which will accommodate some absence to some extent, since missing a few quizzes may not affect your scores for class quizzes.

Quiz format: There will be one format – **Canvas quiz**. You need to be able to login your Canvas to complete quizzes, which means that you need to bring your laptop or mobile devices that will allow you to complete quizzes on Canvas.

No photo policy: If you take a photo of any quiz, it is considered as cheating, because you can ask AI chatbots or send it to your friends who might help you to answer.

Class Discussion Policy: Some classes will mostly involve your discussion on case studies or specific topics. In addition, some lectures may involve your discussion on questions related to class topics. If you actively participate in this discussion, you can get points. How do you get each point? If you contribute to each class discussion, I will give you a card (each worth 10 points). At the end of the class, you need to claim your points by returning the card to me. You need to claim your points on the same day when you receive the card.

If your total points from class discussion exceed 200, you can continue earning points from class discussion.

Academic Assistance

Students are encouraged to utilize the many resources we have throughout campus to assist with academics. We recommend that you seek them out starting early in the semester, not just in times of academic need, in order to develop good study habits and submit work which represents your full academic potential. Many resources may be located on the Economics Website, including information about the Economics Tutoring Center, other tutoring centers, and other academic and personal support : <http://www.economics.illinois.edu/undergrad/resources/accassistance/>

Academic Integrity

According to the Student Code, 'It is the responsibility of each student to refrain from infractions of academic integrity, from conduct that may lead to suspicion of such infractions, and from conduct that aids others in such infractions.' Please know that it is my responsibility as an instructor to uphold the academic integrity policy of the University, which can be found here: http://studentcode.illinois.edu/article1_part4_1-401.html

Academic dishonesty may result in a failing grade. Every student is expected to review and abide by the Academic Integrity Policies. Ignorance is not an excuse for any academic dishonesty. It is your responsibility to read this policy to avoid any misunderstanding. Do not hesitate to ask the instructor(s) if you are ever in doubt about what constitutes plagiarism, cheating, or any other breach of academic integrity. **Read the full Student Code at the following URL:**

<http://studentcode.illinois.edu/>

Students with Disabilities

To obtain disability-related academic adjustments and/or auxiliary aids, students with disabilities must contact the course instructor and the Disability Resources and Educational Services (DRES) as soon as possible. To contact DRES you may visit 1207 S. Oak St., Champaign, call 333-4603 (V/TTY), or e-mail a message to disability@illinois.edu DRES Website: www.disability.illinois.edu/

Emergency Response Recommendations

Emergency response recommendations can be found at the following website: <http://police.illinois.edu/emergency-preparedness/>. I encourage you to review this website and the campus building floor plans website within the first 10 days of class. <http://police.illinois.edu/emergency-preparedness/building-emergency-actionplans/>.

Family Educational Rights and Privacy Act (FERPA)

Any student who has suppressed their directory information pursuant to Family Educational Rights and Privacy Act (FERPA) should self-identify to the instructor to ensure protection of the privacy of their attendance in this course. See <http://registrar.illinois.edu/ferpa> for more information on FERPA. Student information and records will not be released to anyone other than the student, unless the student has provided written approval or as required by law. More information may be found here: http://studentcode.illinois.edu/article3_part6_3-602.html.

Sexual Misconduct Reporting Obligation

The University of Illinois is committed to combating sexual misconduct. Faculty and staff members are required to report any instances of sexual misconduct to the University's Title IX and Disability Office. In turn, an individual with the Title IX and Disability Office will provide information about rights and options, including accommodations, support services, the campus disciplinary process, and law enforcement options. A list of the designated University employees who, as counselors, confidential advisors, and medical professionals, do not have this reporting responsibility and can maintain confidentiality, can be found here: <http://www.wecare.illinois.edu/resources/students/#confidential>. Other information about resources and reporting is available here: <http://wecare.illinois.edu/>.

Student Support

The Counseling Center is committed to providing a range of services intended to help students develop improved coping skills in order to address emotional, interpersonal, and academic concerns. Please visit their website to find valuable resources and services: <https://counselingcenter.illinois.edu/>.

Counseling Center Information: 217-333-3704

Location: Room 206, Student Services Building 610 East John Street,
Champaign, IL Appointment: Scheduled for same day, recommend calling
at 7:50 a.m.

McKinley Mental Health Information: 217-333-2705

Location: 3rd Floor McKinley Health Center 1109 South Lincoln, Urbana, IL
Hours: 8 a.m. – 5 p.m., Monday through Friday Appointment: Scheduled in advance.

Emergency Dean: The Emergency Dean may be reached at (217) 333-0050 and supports students who are experiencing an emergency situation after 5 pm, in which an immediate University response is needed and which cannot wait until the next business day. The Emergency Dean is not a substitute for trained emergency personnel such as 911, Police or Fire. If you are experiencing a life threatening emergency, call 911. Please review the Emergency Dean procedures:

<http://odos.illinois.edu/emergency/>

Academic Dates and Deadlines

Students should make note of important academic dates for making changes to their courses (add, drop, credit/no-credit, grade replacement, etc.). <https://registrar.illinois.edu/academic-calendars>
Please check with your academic department regarding specific procedures and policies.