

**ECON 482****Course****Economics of the Digital Economy**

**Credits:** 3 undergraduate hours, or 4 graduate hours

**Semester:** Fall 2025

**Meeting Times:** TR 9:30AM-10:50AM in 123 David Kinley Hall

**Instructor:** Professor Seung-Hyun Hong

**Email:** [hyunhong@illinois.edu](mailto:hyunhong@illinois.edu)

**Office Hours:** TR 10:50AM-11:40AM in 118 David Kinley Hall or by appointment

**Course Description**

Understanding digital economy does not require brand new economic theories. Instead it needs a different emphasis on factors that are also present in the traditional economy: e.g. more information, lower search costs, lower marginal costs, etc. This course analyzes firm strategies and public policy issues surrounding 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 platforms; economics of information.

**Prerequisites**

Econ 302 (Intermediate Micro Theory); 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](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://jigjids.wordpress.com/wp-content/uploads/2011/02/indorg\\_strapproach.pdf](https://jigjids.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 Canvass.

## 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 Canvass.

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: 400 Total Points (including 300 points evaluated by other students in class)
- Class Discussion: 100 Total Points (+ extra points if you earn more than 100 points)
- Short Quizzes in Class: 400 Total Points (there will be many quizzes, using either iClicker or Canvass)
- Extra Presentation for *Graduate Students*: (200 Total Points)

The final grade for the class will be scored out of 1,000 points (or 1,200 points for graduate students), and it will be determined relative to the distribution of total scores (separately for UG students and graduate students).

### Course Policies

**Class Presentation Policy:** You can form your team (with 4-5 students) on your own, in which case you need to let me know of your team members by Sep 22 (Monday). After Sep 22, I will randomly assign the remaining students to each team (with 4-5 students). If you are graduate students, I will randomly assign you to a team with 3 graduate students.

Once your team is formed, you need to work with your team members to prepare for your two presentations.

Don't shirk! You are expected to contribute to your team equally. But if you think some member provides insufficient or no contribution, you can send me a confidential email about your concern on your team member. If two or more students raise similar concerns on a team member, this team member will receive lower points for their presentation, depending on the seriousness of the concern raised.

Short class presentation (likely on Oct 21): Each team will be given a different topic (but these topics will be all related). Your team needs to email me your presentation slides two days before your presentation.

Final class presentation (on Dec 2, 4): Each team will choose their own topic. You need my approval before working on your project. If we cannot fit all teams in two days, we may reserve a classroom outside regular class hours (which will be determined later).

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

Graduate students: In addition to presentations above, graduate students need one more presentation. More details will be given later.

**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. This 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 two formats – **iClicker** and **Canvass quiz**. If you do not have iClicker, you cannot answer those questions. You are required to bring iClicker every class. You also need to be able to login your Canvass to complete quizzes, which means that you need to bring your laptop or mobile devices that will allow you to complete quizzes on Canvass.

**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 100, 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](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](mailto:disability@illinois.edu) DRES Website: [www.disability.illinois.edu/](http://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](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.