Microeconomics and Public Policy II  
PPHA32400  
Winter 2022

Instructors
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For all emails to instructors and TAs, please put PPHA32400 as the first part of the subject title.

Course Description
This course is the second part of the microeconomic theory sequence that started with PPHA32300. We will cover monopolistic markets, markets with externalities, and the role of government regulation when the market fails. Also, the course introduces such concepts as intertemporal choice and attitude toward risk, which are critical in policy analysis. The more advanced topics include models of information asymmetry such as adverse selection and moral hazard, and international trade.

Prerequisites
PPHA32300 or instructor’s permission. You should be comfortable with basic algebra and calculus.

Key Course Details
- The syllabus, slides, and problem sets will be the same across all sections.
- Lectures: Lecture formats are currently hybrid, with options for in-person and live online instruction. Zoom links will be posted on Canvas. The link is different by Sections, but the link for each Section remains the same throughout the quarter. Lectures will also be recorded and available on Canvas under “Zoom-University of Chicago Main Account” or under “Panopto Video”. **We reserve the right to change teaching modality to online-only mid-quarter as the situation with COVID-19 evolves.** We will give students early warning if this becomes necessary.
- TA Sessions: All TA sessions will be joint across sections.
● **Grading**: See below. Grades will be based on problem sets and policy memo (25%), a midterm exam (35%), and a final exam (40%). Grades will be based on a curve, not specific numerical cut-offs.

**Course Meetings**

All courses meet on both Tuesday and Thursday at the given time below, in the given classroom. Students are expected to participate in the session to which they are assigned. All times listed below are in Chicago time:

- Section 1 (Kumar): 9:30am-10:50am, Keller 1002
- Section 2 (Lo): 11:00am-12:20pm, Keller 1002
- Section 3 (Kumar): 2:00pm-3:20pm, Keller 1002
- Section 4 (Lo): 2:00pm-3:20pm, Keller 0023
- Section 5 (Kumar): 3:30pm-4:50pm, Keller 1022
- Section 6 (Lo): 3:30pm-4:50pm, Keller 1002
- Section 7 (Kumar): 8:00am-9:20am, Keller 1002

**TA Sessions**

TAs will hold weekly sessions, which will last for 80 minutes. In sessions, TAs will explain problem sets and demonstrate how to work with sample exercises, and cover worked problems and review material from the previous week’s lectures. Attendance at problem sessions is recommended. Students will sign up for specific TA sessions when they register for the course. Links for remote sessions will be posted on Canvas. All times listed below are in Chicago time:

- Thu 5:00pm-6:20pm, Keller 1002
- Thu 6:30pm-7:50pm, Keller 1002
- Thu 8:00pm-9:20pm, Zoom
- Fri 9:00am-10:20am, Keller 1022
- Fri 10:30am-11:50am, Keller 1022
- Fri 1:30pm-2:50pm, Keller 1022
- Fri 3:00pm-4:20pm, Keller 1002

**Communication**

Communication from instructors to students will happen through posting of materials on Canvas, including postings to Announcements and sending emails. Please note that you are responsible for reading all Canvas Announcements related to the course. To ensure receipt, you may wish to confirm that you have email notifications enabled for Canvas Announcements.
As there are many students in this sequence, emailing your instructor directly is the least effective way to have either a logistical or a pedagogical issue resolved. Therefore, we suggest and request that communication from students take the following forms:

- Questions regarding scheduling should be directed to the Head TA: Mariella Gonzales (mariegonzalesn@uchicago.edu).
- Questions regarding course materials may be posted on Ed Discussion, a forum that is monitored by all teaching assistants and instructors. Please note that, while we strive to expeditiously respond to student questions posted on Ed Discussion, you should not expect to always receive prompt replies, especially after normal business hours. So, please do not expect to receive a response at 9:00pm on Friday evening for a question related to the homework due later that night at 11:59pm.

### Textbooks

The main textbook for this class is Austan Goolsbee, Steven Levitt, and Chad Syverson, *Microeconomics*, 3rd ed.

However, the material of this course is classic and is covered in several excellent textbooks. Feel free to use the following two.


The advantage of Goolsbee-Levitt-Syverson and Perloff is that they both have a lot of real-world examples. Varian is a bare-bones theory textbook. Be careful (but not discouraged) if you use older versions of the textbooks – chapters, examples, and exercises may vary.

### Lectures

If you have any questions during class time, please raise your hand – the professors will stop periodically to answer. For students attending via Zoom, post your questions on the public chat. If we do not have time to answer in class, please post the questions on Piazza after class, but please no side-conversations in online chat.

We encourage questions and open debate in lectures and discussion sections. Good behavior requires engaging with students, faculty, and staff in a lively, principled, and respectful manner. Questions and debate should focus on relevant topics of economics and policy – personal or ad hominem arguments are not appropriate. We reserve the right to remove participants who do not adhere to standards of good behavior.

### Covid-19 Policy

*Masks*: Students must wear masks properly—covering both nose and mouth—at all times while in the classroom. Students who fail to comply will be reported to the Harris Dean of Students and UCAIR, the University’s incident reporting system for COVID-19 safety matters.
If you think you have COVID-19 symptoms: We recommend that students err on the side of caution and do not come to class. Instead, we recommend you attend remotely if you are well enough to do so, and watch the recorded lectures if you are not. This class has many opportunities to make up for being unable to attend an in-person class—please use these opportunities rather than put your fellow students and instructors at risk.

Public health and/or personal health circumstances vary across individual members of the University community and may change abruptly with limited notice. Students, TA’s, and instructors may need to participate remotely for a short time or, in some limited instances, for the entire quarter. To guide expectations and plans, please note the following:

- **If you are experiencing COVID-19 symptoms or are required to isolate, do not come to class! As soon as possible, reach out to the Harris academic advising team.** They will coordinate with the instructors of all of your courses to develop proper accommodations. You do not need to personally reach out to or explain your situation to the instructors to receive accommodations if you have set up an arrangement with the advising team.

- Students are expected to abide by the University’s COVID-19 health requirements AND its specific Protocol for Addressing Confirmed or Suspected COVID-19 Exposures. Note that the Protocol, which addresses self-monitoring, testing, and isolating requirements, represents evolving guidance and is subject to change.

- Any member of the University community who tests positive for COVID-19 should inform the University contact tracing team at C19HealthReport@uchicago.edu.

- Students missing class for short spells during the term are encouraged to participate in class via live streaming, watch Zoom recordings of class sessions, and otherwise participate in class as fully as possible, health permitting.

**Problem Sets**

There will be eight weekly problem sets. Deadlines for each problem set are as follows:

- Problem set 1 (Price Discrimination): **January 28**
- Problem set 2 (Labor): **January 28** (same day as PS1 due)
- Problem set 3 (Oligopoly): **February 4**
- Problem set 4 (Oligopoly & Public Goods): not graded; no need to submit
- Problem set 5 (Investment): **February 25**
- Problem set 6 (Information): **March 4**
- Problem set 7 (Mechanism Design): **March 11**
- Problem set 8 (Trade): not graded; no need to submit

More instructions on homework submissions:

- Study groups: For problem sets we require you to work in study groups of 3-4 students. During week one we will arrange sign-ups for forming groups, and we will assign groups. For students attending remotely, we will solicit your time zone so as to group you appropriately.

- Please submit one problem set for the group. Submission will be online using Gradescope and should be done as a .pdf file. To ensure you get credit, include the name and student
ID numbers of all members of your group on the first page. Each group member will receive the same grade. **Late problem sets will not be accepted.**

- Also, you **MUST** correctly tag your pages on Gradescope prior to submission. Failure to properly tag the pages for each sub-question will result in a **20% penalty on your grade**. Instructions for tagging pages are located in the "TA slides", found at the bottom of the "Modules" section of Canvas.

- The most important issue about doing problem sets in a group: **Work the problems yourself before you meet with your group.** Having someone explain the problem to you is no substitute for working it yourself – you need to try and solve it yourself.

- We know that your assigned group may not be your ideal group. We encourage you to work with and learn from each other nonetheless. If there are serious problems within your group, for example students not contributing or communicating at all, please email the Head TA, Mariella Gonzales (mariegonzalesn@uchicago.edu). She will escalate to the instructors as needed.

- Questions and concerns about grading should also be first directed to the Head TA, Mariella Gonzales (mariegonzalesn@uchicago.edu).

**Policy Memo**

You will complete one policy memo. The assignment with the full task description will be posted on Canvas three weeks in advance. It will not require any significant outside research; the emphasis is on clarity and high-quality writing. The memo will be a maximum of three pages (12 pt font, 1.5 line spacing). However, this is a maximum rather than the target: there is no premium for length. You need to submit the policy memo by **February 25**.

**Time Management & Time Expectations**

One of the most challenging adjustments for many students in their first year of graduate studies is time management. It is extremely important that you provide yourself ample time to complete all assignments and to prepare for all assessments.

Problem sets are graded based on completion, so a group of students who make a good-faith effort to correctly complete the assignment and submit it on time should receive full credit.

For many students, the homework assignments and policy memo may take in excess of 10 hours to complete. With that time commitment in mind, it is extremely important that you start homework assignments sufficiently far in advance of the due date. Starting early ensures that you have ample time to complete the assignment and ample opportunity to seek help from your peers, TAs, instructors, and other course resources should you need assistance.

**Grading**

As mentioned above, final grades in this course have three components: **Problem sets and policy memo (25%), a midterm exam (30%), and a final exam (45%).** Attendance in lecture
and TA sessions is not a component of your grade, although we strongly recommend it so students can stay on track in the course.

Like all Harris core courses, this course is graded on a curve based on students’ relative ranking across all sections. This curve is mandated by Harris and instructors are compelled to adhere to it. Final letter grades will be distributed as follows, with modest deviations permitted in cases where students on either side of a cutoff have nearly identical numerical scores:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Top 1/8</td>
</tr>
<tr>
<td>A-</td>
<td>Next 1/4</td>
</tr>
<tr>
<td>B+</td>
<td>Next 1/4</td>
</tr>
<tr>
<td>B</td>
<td>Next 1/4</td>
</tr>
<tr>
<td>B- and below</td>
<td>Bottom 1/8</td>
</tr>
</tbody>
</table>

**Exams**

We will have one midterm exam (on February 10) as well as the final exam (on Final Week, TBD). The midterm will cover material from the lectures preceding that date. The final will cover material from the entire quarter. TA sessions one week prior to the exams will serve as review sessions. You must obtain permission from the Dean of Students to take an exam at any time other than the scheduled hours.

**Regrade Requests**

If you would like to contest a grade, you must do so in Gradescope within 7 days of receiving your grade for that assignment or exam. All members of a group must agree to have the assignment regraded (in the case of assignments that are submitted as a group). To submit a regrade request, first click on the question that you wish to submit a request for in Gradescope. Once a question has been selected, click the Request Regrade button in the bottom action bar. A textbox will appear allowing you to type an explanation of the request for the specific question that was chosen. See here. In all cases, the entire assignment will be regraded, not just the question or specific part that pertains to your grievance. As a result, the regrade can (and often does) result in a lower overall grade on the assignment or exam.

**Instructor Office Hours**

The instructors will conduct office hours. Due to COVID-19, we will be conducting regular office hours over Zoom. Instructor office hours are meant for answering high-level questions about lecture materials and topics, and the course. In general, instructor office hours are not
meant for long reviews of problem set questions—questions about problem sets are better directed towards Piazza or TAs. You are encouraged to attend your instructor’s office hours (rather than the other instructor’s office hours). However, if your schedule precludes you from attending your instructor’s office hours, you may attend the office hours of the other instructor. For these office hours, a student or small group of students (we encourage you to attend office hours in a small group!) can reserve an available time slot to meet with the instructor. More information, including time slots and zoom links for office hours, is available on the Canvas site.

- Navin Kumar: Wednesday, 9am-11am. Sign up for meeting [here](#), Zoom meeting [here](#)
- Sheng-Hao Lo: Wednesday, 1pm-2:50pm. Sign up for meeting [here](#), Zoom meeting [here](#)

**TA Office Hours**

In addition to these classroom style sessions, TAs will also offer office hours, where you can receive more individualized attention on a first-come, first-served basis. These office hours, should you partake of them, will supplement the main TA sessions, and will be served by the TAs in rotation. You should ask questions about class material only when you remain confused after TA sessions. In addition, you should have attempted the homework and reviewed the relevant class and problem session materials thoroughly before bringing homework questions to TA office hours. Links for remote sessions will be posted on Canvas. All times listed below are in Chicago time:

- Mon 5:00pm-6:00pm, Keller 2082
- Mon 6:00pm-7:00pm, Zoom
- Tue 6:30pm-7:30pm, Zoom
- Wed 5:00pm-6:00pm, Keller 2082
- Wed 6:00pm-7:00pm, Zoom
- Fri 4:30pm-5:30pm, Keller 2054
- Additional TA office hours on weeks 5 and 9 only: Fri 5:30pm-6:30pm, Zoom

**Tutoring Hours**

Harris school offers 10 hours of free tutoring for students enrolled in core classes. Harris Student Affairs will share information about how to access tutoring in Week 3 of the quarter. Any questions should be directed to [HarrisStudentAffairs@uchicago.edu](mailto:HarrisStudentAffairs@uchicago.edu).
# Tentative Course Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Lect</th>
<th>Topic</th>
<th>Textbook</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1/11</td>
<td>1</td>
<td>Price discrimination: perfect price discrimination, segmenting, quantity discount</td>
<td>Ch 10.1, 10.2, 10.3</td>
</tr>
<tr>
<td></td>
<td>1/13</td>
<td>2</td>
<td>Price discrimination: discounts, bundles, 2-part tariffs</td>
<td>Ch 10.4, 10.5, 10.6</td>
</tr>
<tr>
<td>2</td>
<td>1/18</td>
<td>3</td>
<td>Labor: labor demand, labor supply, equilibrium</td>
<td>Ch 13.1, 13.2, 13.3, 13.4</td>
</tr>
<tr>
<td></td>
<td>1/20</td>
<td>4</td>
<td>Labor: monopsony, monopoly, other topics in labor</td>
<td>Ch 13.6, 13.7</td>
</tr>
<tr>
<td>3</td>
<td>1/25</td>
<td>5</td>
<td>Oligopoly: Cournot duopoly, Bertrand duopoly</td>
<td>Ch 11.3, 11.4</td>
</tr>
<tr>
<td></td>
<td>1/27</td>
<td>6</td>
<td>Oligopoly: cartels and collusion</td>
<td>Ch 12.3</td>
</tr>
<tr>
<td>4</td>
<td>2/1</td>
<td>7</td>
<td>Oligopoly: differentiation &amp; monopolistic competition</td>
<td>Ch 11.6, 11.7</td>
</tr>
<tr>
<td></td>
<td>2/3</td>
<td>8</td>
<td>Public goods, tragedy of the commons</td>
<td>Ch 17.4</td>
</tr>
<tr>
<td>5</td>
<td>2/8</td>
<td>9</td>
<td>Review &amp; applications</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>2/10</td>
<td></td>
<td><strong>Midterm exam based on Lectures 1-8</strong></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>2/15</td>
<td>10</td>
<td>Investment: present discounted values</td>
<td>Ch 14.1, 14.2, 14.3</td>
</tr>
<tr>
<td></td>
<td>2/17</td>
<td>11</td>
<td>Investment: risk, uncertainty, insurance</td>
<td>Ch 14.4, 14.5</td>
</tr>
<tr>
<td>7</td>
<td>2/22</td>
<td>12</td>
<td>Information: adverse selection, principal-agent problem</td>
<td>Ch 16.1, 16.3</td>
</tr>
<tr>
<td></td>
<td>2/24</td>
<td>13</td>
<td>Information: moral hazard, signaling</td>
<td>Ch 16.2, 16.4</td>
</tr>
<tr>
<td>8</td>
<td>3/1</td>
<td>14</td>
<td>The economics of healthcare</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>3/3</td>
<td>15</td>
<td>Trade: Ricardian model, multilateral trade agreements</td>
<td>n/a</td>
</tr>
<tr>
<td>9</td>
<td>3/8</td>
<td>16</td>
<td>Mechanism design: auctions, non-price mechanisms</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>3/10</td>
<td>17</td>
<td>Review &amp; applications</td>
<td>n/a</td>
</tr>
</tbody>
</table>
Diversity and Inclusion

The Harris School welcomes, values, and respects students, faculty, and staff from a wide range of backgrounds and experiences, and we believe that rigorous inquiry and effective public policy problem-solving requires the expression and understanding of diverse viewpoints, experiences, and traditions. The University and the Harris School have developed distinct but overlapping principles and guidelines to ensure that we remain a place where difficult issues are discussed with kindness and respect for all.

The University’s policies are available below. Specifically, the University identifies the freedom of expression as being “vital to our shared goal of the pursuit of knowledge, as is the right of all members of the community to explore new ideas and learn from one another. To preserve an environment of spirited and open debate, we should all have the opportunity to contribute to intellectual exchanges and participate fully in the life of the University.”

The Harris School’s commitments to lively, principled, and respectful engagement are available below: “Consistent with the University of Chicago’s commitment to open discourse and free expression, Harris encourages members of the leadership, faculty, student body, and administrative staff to respect and engage with others of differing backgrounds or perspectives, even when the ideas or insights shared may be viewed as unpopular or controversial.” We foster thought-provoking discourse by encouraging community members not only to speak freely about all issues but also to listen carefully and respectfully to the views of others.

University policies: https://studentmanual.uchicago.edu/university-policies/
Harris policies: https://harris.uchicago.edu/about/who-we-are/diversity-inclusion

Title IX Reporting Responsibilities

Your instructor and TAs for this class are designated as “responsible employees” under the US law known as Title IX. We have a duty to report incidents of sexual harassment, including sexual violence, domestic violence, dating violence, and stalking, or other misconduct to appropriate school officials.

Academic Integrity (aka Cheating)

This is a large and important class for your education here at Harris. We take academic integrity very seriously, and although we have the highest confidence in you as students, we must also remind you that academic integrity and honesty are central to our mission as a school and to each of us as instructors, TAs, and students.

All University of Chicago students are expected to uphold the highest standards of academic integrity and honesty. Among other things, this means that students shall not represent another’s
work as their own, use un-allowed materials during exams, or otherwise gain unfair academic advantage. From the University’s policy (link below): “It is contrary to justice, academic integrity, and to the spirit of intellectual inquiry to submit another’s statements or ideas as one’s own work. To do so is plagiarism or cheating, offenses punishable under the University’s disciplinary system. Because these offenses undercut the distinctive moral and intellectual character of the University, we take them very seriously.”

The Harris School’s policies are available in the Harris Student Handbook Canvas site. All students suspected of academic dishonesty will be reported to the Harris Dean of Students for investigation and adjudication. The disciplinary process can result in sanctions up to and including suspension or expulsion from the University. In addition to disciplinary sanctions, we reserve the right to impose other sanctions, up to a failing grade for the course for students who have committed academic dishonesty, regardless of performance on elements of the course.

University policies: https://studentmanual.uchicago.edu/academic-policies/academic-honesty-plagiarism/

Note, of course, that for problem sets we are asking you to work in groups, and so in this course (but not necessarily other courses at Harris) collaborating on problem sets is not considered academic dishonesty – we are asking you to collaborate. We do require, however, that each group write up and hand in their own solution and put the group members on the solution set. This is as much for your own benefit as it is for ours – you need to work on the problems and understand the problems if you want to pass the midterm and final, and later classes here at Harris.

**Disability Accommodations**

The University’s policies regarding students with disabilities are available below. Students who have disability accommodations awarded by the University Student Disability Services (SDS) Office should inform the Harris Dean of Students office by the end of the first week of class. The Harris Dean of Students Office will work with the student and instructor to coordinate the students’ accommodations implementation.

Harris students are not required to submit their accommodations letter to the instructor. Students from other divisions in the University must submit their accommodations letter to either the instructor or the Harris Dean of Students Office—we recommend submitting it to the Dean of Students office for fastest reply.

Students who do not yet have formal accommodations in place but who feel they need accommodations on a temporary or ongoing basis should contact the Harris Dean of Students Office or Student Disability Services.

University policies: https://studentmanual.uchicago.edu/university-policies/disability-accommodations/

**Student Mental Health and Other Support**

If you or someone you know is feeling overwhelmed, depressed, and/or in need of support, remote counseling services are available. Student Counseling Service (SCS) urges you to attend to your mental wellbeing and to reach out to them for support during these challenging times. All
SCS services are covered by the Student Life Fee, and there is no additional cost for students to access their services. See https://wellness.uchicago.edu/mental-health/. Students seeking new services/resources can call 773.702.9800 during business hours (Monday–Friday 8:30 a.m.–5 p.m.) and ask to speak with a clinician. Students needing urgent mental health care can speak with clinicians over the phone 24/7 by calling the SCS at 773.702.3625.

The Harris School itself provides both academic and non-academic support services for students. These resources are described (and links provided) via the Canvas site Harris Student Handbook, which all Harris instructors can access.

University of Chicago Policy on Lecture Recordings

The Recording and Deletion Policies for the current academic year can be found in the Student Manual under Petitions, Audio & Video Recording on Campus. By attending course sessions, students acknowledge that:

1. They will not: (i) record, share, or disseminate University of Chicago course sessions, videos, transcripts, audio, or chats; (ii) retain such materials after the end of the course; or (iii) use such materials for any purpose other than in connection with participation in the course.

2. They will not share links to University of Chicago course sessions with any persons not authorized to be in the course session. Sharing course materials with persons authorized to be in the relevant course is permitted. Syllabi, handouts, slides, and other documents may be shared at the discretion of the instructor.

3. Course recordings, content, and materials may be covered by copyrights held by the University, the instructor, or third parties. Any unauthorized use of such recordings or course materials may violate such copyrights.

4. Any violation of this policy will be referred to the Area Dean of Students.