

Syllabus Econ 404

Industrial Organization and Price Theory

University of Washington Fall 2020

Lecture 12:30-2:20 MW Online Zoom

Instructor

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Canvas for course material & announcements

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Grader

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Course Description

Economics 404 is an advanced undergraduate course in Industrial Organization (IO). IO focuses on the decisions and interactions of firms and consumers within narrowly defined markets. The course begins with the neoclassical model of perfectly competitive firms and then consider others forms of competition (monopoly, cartel, oligopoly, and differentiated product firms). In this part of the course we use game theory, which recasts economic interactions as “games” and examines the strategic behavior of firms. Next we study firm strategies related to pricing, such as price discrimination and bundling. As time permits we will study other topics, including information, advertising, organization of the firm, durable goods, patents, and auctions. Throughout we will consider government regulation of industries. The course is designed to teach the conceptual and theoretical models of IO, not methods for empirical analysis. However there will be readings of papers that present empirical studies of industries.

Textbook and Readings

The required textbook is:

Carlton & Perloff. *Modern Industrial Organization*. **4th Edition**.

You may purchase or rent a new or used version from any vendor of your choice. The international edition has the same content.

Throughout the semester, we will have supplemental readings from academic research papers on IO. We will devote a class period to discuss the papers. The night before these class periods you should email me a brief paper review following the paper review guidelines.

Prerequisites & Math Background

Intermediate Microeconomics is the only prerequisite that is mandatory. We will use mathematics, including multivariate calculus, extensively. When studying cases from real

industries, we will look at data and econometric analyses. A course in econometrics is useful background, but not a prerequisite nor necessary to be successful in this course.

Homework

There will be four homework assignments. They will consist of short written answers, and some that will require manipulating graphs and performing calculations. You must show all steps and explain in sentences your answers for graphing and calculation based questions to receive full credit. Understanding the homework exercises will be excellent preparation for exams.

You are encouraged to type your homework assignments, but if you choose to handwrite, your solutions should be legible. Graphs and numerical calculations do not need to be typed. Assignments should be turned in through Canvas on the due date. Late homeworks will be deducted points depending on the circumstances. No points will be available for assignments turned in after graded assignments are returned.

Students are encouraged to work with others on homework assignments; however, you must turn in your own original work and cite the names of the other students in your group. Students are expected to abide by the university's academic integrity standards for all classroom, homework, and exam matters. Submitting identical homeworks will not be tolerated. Submitting substantially similar homeworks will receive at most one warning.

Exams

There will be two midterm exams and a final exam. The midterms will only cover material from that section of the course. The final exam is cumulative. All exams are time bound, administered during the scheduled class time period. The format will be similar to homework assignments.

The exams are intended to be closed-book, closed note. Given the constraints of online teaching, I will not enforce this as a matter of policy.

Grading

Homework assignments will account for 40% of your grade and exams 60%.

There will be four homework assignments. Each counts equally towards the homework component of your grade. You cannot drop a homework assignment. All assignment must be turned in.

The exam portion of your grade will be based on midterm 1, midterm 2, and the final. The final exam carries a weight double that of a midterm. Either a midterm grade will be dropped or half of the final exam, depending on which exam receives the lowest grade. (You cannot drop the final exam entirely.)

The table summarizes the contribution of each exam towards your final grade based on which exam has the lowest grade.

Lowest Grade	Midterm 1 Weight	Midterm 2 Weight	Final Exam Weight
Midterm 1	0%	20%	40%
Midterm 2	20%	0%	40%
Final	20%	20%	20%

Grading Scale

4.0-3.9	A	93-100
3.8-3.5	A-	90-93
3.4-3.2	B+	87-90
3.1-2.9	B	83-87
2.8-2.5	B-	80-83
2.4-2.2	C+	77-80
2.1-1.9	C	73-77
1.8-1.5	C-	70-73
1.4-1.2	D+	67-70
1.1-0.9	D	63-67
0.8-0.7	D-	60-63
0	F	<60

I reserve the right to lower the grade cutoff percentages at the end of the semester.

The paper reviews are not individually graded. However your grade will be lowered within the point band if you fail to complete paper reviews or turn in unsatisfactory work.

The Grader will be responsible for the grading of all homework and exams. You should contact the Grader about any concerns you may have with the grading of a particular problem. Only after first contacting the Grader, should you approach the instructor about an individual grading matter.

Attendance

Students are expected to attend all online lectures. I reserve the right to lower grades for students with repeated absences and/or tardiness. If you must miss class or are ill please notify me before the scheduled class time. Some course material cannot be found in the textbook and will only be presented during lecture. In case of an un-excused absence, you will be responsible for all material covered that day.

Exceptions to the attendance policy can be made by request for students residing abroad. Please contact instructor to discuss arrangements.

Religious Accommodations

Washington state law requires that UW develop a policy for accommodation of student absences or significant hardship due to reasons of faith or conscience, or for organized religious activities. The UW's policy, including more information about how to request an accommodation, is available at [Religious Accommodations Policy \(https://registrar.washington.edu/staffandfaculty/religious-accommodations-policy/\)](https://registrar.washington.edu/staffandfaculty/religious-accommodations-policy/).

Accommodations must be requested within the first two weeks of this course using

the [Religious Accommodations Request form](https://registrar.washington.edu/students/religious-accommodations-request/)
[\(https://registrar.washington.edu/students/religious-accommodations-request/\)](https://registrar.washington.edu/students/religious-accommodations-request/).

Course Schedule

This is a tentative schedule of topics with reading chapters. The final exam date and time cannot be changed. Be aware, HW due dates are tentative and likely to be changed. Midterms dates may also change with advanced notice given.

Date	Topic	Chapters	HW
Sept 30	Intro/Principles	1	
Oct 5	Firm Cost/ Perfect Competition	2	
Oct 6	Monopoly	3	
Oct 12	Finance/Mergers	1	HW1 due
Oct 14	Game Theory	4	
Oct 19	Game Theory	4	
Oct 21	Oligopoly	6	
Oct 26	Oligopoly/Review	6	HW2 due
Oct 28	Midterm 1		
Nov 2	Cartel	5	
Nov 4	Price Discrimination	9	
Nov 9	Pricing Strategies	10/11	
Nov 11	Veterans Day Holiday		
Nov 16	Information	13	HW3 due
Nov 18	Information	14	
Nov 23	Durable Goods/Patents	15/16	
Nov 25	Auctions/LIBOR		
Nov 30	Auctions/Review		HW4 due
Dec 2	Midterm 2		
Dec 7	Auctions		
Dec 9	Review		
Dec 17	Final Exam	8:30-10:20am	Thursday