



# JOHNS HOPKINS

## CAREY BUSINESS SCHOOL

### Business Microeconomics

3 Credits

BU.220.620.31/32/33

5/31/22 – 7/25/22

Summer 2022

Location: Online

### Instructor

Professor Alec Brandon, PhD

### Contact Information

E-mail: [alec.brandon@jhu.edu](mailto:alec.brandon@jhu.edu)

### Office Hours

Monday 5-7pm ET and by appointment, virtual. Zoom link:

<https://jhucarey.zoom.us/j/98107949402?pwd=c2tsL3d2T0lrSmhNR3Y4M0hoTnl0QT09>

### Teaching Assistant

Ronghao Lu

E-mail: [rlu23@jhu.edu](mailto:rlu23@jhu.edu)

Shanyuan Zheng

Email: [szheng28@jhu.edu](mailto:szheng28@jhu.edu)

### Instructional Teaching Specialist

Catherine Mitias, [Catherine.Mitias@jhu.edu](mailto:Catherine.Mitias@jhu.edu). Cathy is a member of the Teaching and Learning Team at Carey and will monitor the Course Q&A for issues with the course navigation. You are highly encouraged to use this discussion forum for your questions as an alternative to email so that Cathy's responses are shared with the entire class.

### Texts & Learning Materials: *Note: Required readings are marked with (\*)*

#### Textbook

- (\*) Perloff, J. M., & Brander, J. A. (2018). *Managerial economics and strategy* (3rd ed.). Pearson Higher Ed.

#### Resources on e-Reserves

- Valerie Suslow and Jonathon Hamilton, Study Guide for 9th Edition Microeconomics, 2018 ISBN-13: 9780134741123
- The Economist. (2020). Free exchange: The Nobel prize in economics rewards advances in auction theory.
- Chen, Y., Cramton, P., List, J., & Ockenfels, A. (2020). Market design, human behavior, and management. *Management Science*.
- (\*) Eisenmann, T., Parker, G., & Van Alstyne, M. W. (2006). Strategies for two-sided markets. *Harvard Business Review*, 84(10), 92.

- Hawkins, J. (2020, October 12). *Making auctions work: The winning ideas behind this year's Nobel prize in economics*. The Conversation.
- (\*) Lee, S., & Niederle, M. (2014). Propose with a rose? Signaling in internet dating markets. *Experimental Economics*, 18(4), 731-755.
- Paul R. Milgrom, The Sveriges Riksbank Prize in Economic Sciences 2020. (2020, December 8).
- Rigoglioso, M. (2006, January 1). The high price of internet keyword auctions. *Stanford Graduate School of Business*.

## Course Description

This course develops the students' ability to apply fundamental microeconomics concepts and tools to decision making by consumers and firms, and to understand economic exchanges and market mechanisms. The first part of the course covers consumer choice and market demand, production costs and firms' profit maximization, market competition and equilibrium, market power and the implications of different market structures for output and pricing decisions. The second part is devoted to understanding the principles and design of practical market mechanisms; topics include game theory, auctions, and platforms.

## Prerequisite(s)

BU.510.601 OR BU.914.610

## Learning Objectives

By the end of this course, students will be able to:

1. Understand the determinants and characteristics of consumer-level and market-level demand, and of firm-level and market-level supply.
2. Understand the concepts of perfect competition and market equilibrium.
3. Understand and derive the short-run and long-run effects of demand and supply shocks on firm decisions and market equilibrium.
4. Recognize the implications of alternative pricing strategies for firm profits, consumer surplus, and overall welfare.
5. Apply tools from game theory to evaluate the implications of different industry structures, informational structures, and strategic scenarios for managerial decision making.
6. Understand fundamental market design concepts and their relevance to the analysis and design of practical market mechanisms (auctions and two-sided platforms).

To view the complete list of the Carey Business School's general learning goals and objectives, visit the [Carey website](#).

## Course Policies

### Synchronous Online Sessions

Attendance of synchronous online sessions is highly recommended and of great value to students. The synchronous online sessions for this course will be delivered via Zoom at the Synchronous Online Sessions Zoom link: <https://jhucarey.zoom.us/j/98107949402?pwd=c2tsL3d2T0lrSmhNR3Y4M0hoTnl0QT09>

Module	Date	Time
Module 1	Tuesday, May 31 <sup>st</sup>	6:00 – 7:00 pm, ET
Module 3	Monday, June 13 <sup>th</sup>	6:00 – 7:00 pm, ET
Module 5	Monday, June 27 <sup>th</sup>	6:00 – 7:00 pm, ET
Module 7	Monday, July 11 <sup>th</sup>	6:00 – 7:00 pm, ET

## Participation

Active participation is required for students to meet the highest expectations for this course. Students are expected to participate in all assigned online class activities and assessments.

Interacting with other students via discussion boards is an important part of this course and will require prompt postings and responses.

### Grace Period

Given that online students are located in multiple time zones, all assignments/exams with an 11:59 pm ET deadline have a three-hour grace period. In other words, all students may submit assignments/exams with an 11:59 pm ET deadline as late as 2:59 am ET the next day.

### Communication

A Q&A discussion board has been set up as a place for students to submit questions to their peers and the instructor regarding course navigation, course content, course assignments, and other related queries. This format allows students to see the questions that their classmates have already asked, as well as the answers that have been provided. The instructor and the teaching assistants will check the Q&A discussion board daily and respond to student questions, where appropriate and necessary.

Students who have a question that is regarding a personal matter (such as grades) should email the instructor directly. Otherwise, students are encouraged to use the course's Q&A discussion board.

Types of Questions	Where to Get Answers
<b>Grades</b>	The instructor
<b>Personal information</b>	The instructor
<b>Course navigation</b> <i>Example: Where can I find this week's assignments?</i>	Q&A discussion board
<b>Course content</b> <i>Example: What's the difference between micro and macroeconomics?</i>	Q&A discussion board
<b>Assignments</b> <i>Example: Do I have to submit the presentation as a PPT?</i>	Q&A discussion board
<b>Other general questions about the course</b>	Q&A discussion board
<b>Technical issues</b> <i>Example: Why can't I open this file?</i> <i>Example: I got kicked out of an exam. What should I do?</i>	Online Course Technical Support (OCTS)

### Assignments

Assignment	Group or Individual	Learning Objectives	Weight
Article Contribution and Discussion	Individual	1, 2, 3, 4, 5, 6	12%
Participation	Individual	1, 2, 3, 4, 5, 6	10%
Required Problems	Individual	1, 2, 3, 4, 5, 6	28%
Midterm Exam	Individual	1, 2, 3, 4, 5, 6	20%
Final Exam	Individual	1, 2, 3, 4, 5, 6	30%
Total			100%

Please see the Assignment Overview section in Blackboard for details.

### Grading

The grade of A is reserved for those who demonstrate extraordinary performance as determined by the instructor. The grade of A- is awarded only for excellent performance. The grades of B+ and B are awarded for good performance. The grades of B-, C+, C, and C- are awarded for adequate but substandard performance. The grades of D+, D, and D- are not awarded at the graduate level. The grade of F indicates the student's failure to satisfactorily complete the course work. For Core/Foundation courses, the grade point average of the class should not exceed 3.35. For Elective courses, the grade point average should not exceed 3.45.

**Tentative Course Calendar**

Instructors reserve the right to alter course content and/or adjust the pace to accommodate class progress. Students are responsible for keeping up with all adjustments to the course calendar.

<b>Week</b>	<b>Topic</b>	<b>Materials</b>	<b>Due</b>
0	Introduction to Course	Course Overview video	
1	Consumer and Market Demand	<p>Perloff &amp; Brander:</p> <ul style="list-style-type: none"> <li>• Ch. 1: Introduction</li> <li>• Ch. 2: Supply and Demand, ("Demand")</li> <li>• Ch. 3: Empirical Methods for Demand Analysis, ("Elasticity")</li> <li>• Ch. 8: Competitive Firms and Markets, ("Consumer Surplus")</li> <li>• Ch. 9: Monopoly, ("Marginal Revenue")</li> </ul> <p>Lecture videos:</p> <ul style="list-style-type: none"> <li>• Fundamental concepts and decision making "on the margin"</li> <li>• Individual Consumer Demand</li> <li>• Market demand and own-price elasticity</li> <li>• Other relevant demand elasticities</li> </ul>	<p>M1 Practice Problems M1 Required Problems M1 Introduction Discussion</p>
2	Costs, Supply, and Profit Maximization	<p>Perloff &amp; Brander:</p> <ul style="list-style-type: none"> <li>• Ch. 6: Costs, ("Economic Costs"; "Economies of Scale")</li> <li>• Ch. 7: Supply and Demand, ("Profit Maximization")</li> <li>• Ch. 9: Monopoly, ("Monopoly"; "Network Effects")</li> </ul> <p>Lecture videos:</p> <ul style="list-style-type: none"> <li>• Cost concepts</li> <li>• Profit Maximization</li> <li>• Economies of scale</li> <li>• Costs and profit maximization- Learning through practice problems</li> </ul>	<p>M2 Practice Problems M2 Required Problems M2-M4 Article Contribution and Discussion (ongoing)</p>

3	Perfect Competition and Market Analysis	<p>Perloff &amp; Brander:</p> <ul style="list-style-type: none"> <li>Ch. 2: Costs, ("Market Supply"; "Market Equilibrium"; "Price Controls")</li> <li>Ch. 8: Competitive Firms and Markets, ("Perfect Competition"; "Competitive Firm Behavior"; "Producer Surplus"; "Market Equilibrium")</li> </ul> <p>Lecture videos:</p> <ul style="list-style-type: none"> <li>Perfect competition</li> <li>Competitive equilibrium and economic efficiency</li> <li>Firm and market adjustments in response to shocks</li> <li>A practice problem on competitive market dynamics</li> </ul>	<p>M3 Practice Problems M3 Required Problems M2-M4 Article Contribution and Discussion (ongoing)</p>
4	Pricing with Market Power	<p>Perloff &amp; Brander:</p> <ul style="list-style-type: none"> <li>Ch. 10: Pricing with Market Power ("Conditions for Price Discrimination"; "Perfect Price Discrimination"; "Group Price Discrimination"; "Nonlinear Price Discrimination"; "Two-Part Pricing")</li> </ul> <p>Lecture videos:</p> <ul style="list-style-type: none"> <li>Pricing with Market power</li> <li>Two-part tariffs</li> <li>Market Segmentation—An Example</li> </ul>	<p>M4 Practice Problems M4 Required Problems M2-M4 Article Contribution and Discussion (deadline)</p> <p>Midterm Exam</p>
5	Strategic Competition and Game Theory	<p>Perloff &amp; Brander:</p> <ul style="list-style-type: none"> <li>Ch. 12: Game Theory and Business Strategy, ("Basics of game theory"; "Simultaneous games, Oligopoly")</li> <li>Ch. 13: Strategies Over Time, ("Repeated Games"; "Sequential Games"; "Entry Deterrence")</li> </ul> <p>Lecture videos:</p> <ul style="list-style-type: none"> <li>Game theory and the prisoner's dilemma</li> <li>Entry deterrence</li> <li>Collusion and repeated interactions</li> <li>Dominant strategies and Nash equilibria</li> </ul>	<p>M5 Practice Problems M5 Required Problems M5-M7 Article Contribution and Discussion (ongoing)</p>

6	Market Design: Auctions	<p>Perloff &amp; Brander:</p> <ul style="list-style-type: none"> <li>Ch. 12: Game Theory and Business Strategy, ("Auctions")</li> </ul> <p>E-Reserves</p> <ul style="list-style-type: none"> <li>The Economist. (2020). Free exchange: The Nobel prize in economics rewards advances in auction theory.</li> <li>Hawkins, J. (2020, October 12). Making auctions work: The winning ideas behind this year's Nobel prize in economics. <i>The Conversation</i>.</li> <li>Rigoglioso, M. (2006, January 1). The high price of internet keyword auctions. <i>Stanford Graduate School of Business</i>.</li> <li>Paul R. Milgrom, The Sveriges Riksbank Prize in Economic Sciences 2020. (2020, December 8).</li> </ul> <p>Lecture videos:</p> <ul style="list-style-type: none"> <li>Auctions in practice</li> <li>Private value auctions -- from bidding strategies to revenues</li> <li>Common value auctions and the winner's curse</li> <li>Details matter – the design of internet auctions</li> </ul>	<p>M6 Practice Problems</p> <p>M6 Required Problems</p> <p>M5-M7 Article Contribution and Discussion (ongoing)</p>
7	Market Design: Platforms and Marketplaces	<p>Perloff &amp; Brander:</p> <ul style="list-style-type: none"> <li>Ch. 9: Internet Monopolies, ("Network Effects and Scale Economies")</li> <li>Ch. 14: Decision Making Under Uncertainty ("Assessing Risk", "Attitudes Towards Risk", "Reducing Risk")</li> <li>Ch. 15: Asymmetric Information ("Adverse Selection", "Reducing Adverse Selection", "Moral Hazard")</li> </ul> <p>E-reserves:</p> <ul style="list-style-type: none"> <li>Chen, et. al., Market design, human behavior, and management.</li> <li>Eisenmann, et al., Strategies for two-sided markets. <i>Harvard Business Review</i>, 84(10), 92.</li> <li>Lee &amp; Niederle, Propose with a rose? Signaling in internet dating markets. <i>Experimental Economics</i>, 18(4), 731-755.</li> </ul>	<p>M7 Practice Problems</p> <p>M7 Required Problems</p> <p>M5-M7 Article Contribution and Discussion (deadline)</p>

		<p>Lecture videos:</p> <ul style="list-style-type: none"> <li>• Platforms and marketplaces</li> <li>• Challenges faced by markets: risk and asymmetric information</li> <li>• Platforms and network effects</li> <li>• Marketplace “safety” and eBay’s feedback system</li> <li>• Congestion and costly signaling: the case of online dating</li> </ul>	
8	Final Exam	Supplemental practice questions with solutions.	Final Exam

## **Carey Business School Policies and General Information**

### **Blackboard Site**

A Blackboard course site is set up for this course. Each student is expected to check the site throughout the semester as Blackboard will be the primary venue for outside classroom communications between the instructors and the students. Students can access the course site at [blackboard.jhu.edu](https://blackboard.jhu.edu).

### **Technical Support**

24/7 technical support for questions regarding Zoom, Blackboard, and other technical issues is available. Please refer to the *Carey Blackboard Support* information box (located within Blackboard's *My Institution* tab) for contact information and other details.

### **Students with Disabilities - Accommodations and Accessibility**

Johns Hopkins University values diversity and inclusion. We are committed to providing welcoming, equitable, and accessible educational experiences for all students. Students with disabilities (including those with psychological conditions, medical conditions and temporary disabilities) can request accommodations for this course by providing an Accommodation Letter issued by [Student Disability Services](#). Please request accommodations for this course as early as possible to provide time for effective communication and arrangements. For further information or to start the process of requesting accommodations, please contact [Student Disability Services](#) at the Carey Business School.

### **Academic Ethics Policy**

Carey expects graduates to be innovative business leaders and exemplary global citizens. The Carey community believes that honesty, integrity, and community responsibility are qualities inherent in an exemplary citizen. The objective of the Academic Ethics Policy (AEP) is to create an environment of trust and respect among all members of the Carey academic community and hold Carey students accountable to the highest standards of academic integrity and excellence.

It is the responsibility of every Carey student, faculty member, and staff member to familiarize themselves with the AEP and its procedures. Failure to become acquainted with this information will not excuse any student, faculty, or staff from the responsibility to abide by the AEP. Please contact the [Office of Student Affairs](#) if you have any questions. For the full policy, please visit the [Academic Ethics Policy webpage](#).

### **Student Conduct Code**

The fundamental purpose of the Johns Hopkins University's regulation of student conduct is to promote and to protect the health, safety, welfare, property, and rights of all members of the University community as well as to promote the orderly operation of the University and to safeguard its property and facilities. Please contact the [Office of Student Affairs](#) if you have any questions regarding this policy. For the full policy, please visit the [Student Conduct Code webpage](#).

### **Hybrid and Remote-Live Classes**

Carey is committed to maintaining our standard of excellence in all forms of instruction. To that end, we have developed [policies and procedures for classes offered in hybrid and remote-live formats](#). These policies will govern all courses occurring in these formats, and all students are expected to familiarize themselves with and adhere to these policies.

### **Student Success Center**

The Student Success Center offers assistance in core writing and quantitative courses. For more information, visit the [Student Success Center webpage](#).

### **Other Important Policies and Services**

Students are encouraged to consult the [Student Handbook and Academic Catalog](#) and [Student Services and Resources](#) for information regarding other policies and services.

### **Copyright Statement**

Unless explicitly allowed by the instructor, course materials, class discussions, and examinations are created for and expected to be used by class participants only. The recording and rebroadcasting of such material, by any means, is forbidden. Violations are subject to sanctions under the [Academic Ethics Policy](#).