



EC 3356.02/03 Syllabus
Industrial Organization for Business Decisions

Spring 2017, Gasson 201

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Course Description: We study the behavior of firms and the structure of industries, applying game theory to understand the strategic interaction of firms when the assumptions of perfect competition break down. The course combines theoretical micro-economic analyses with studies of actual firm behavior in individual industries. Topics include pricing, game theory, collusion, entry deterrence, outsourcing, auctions, and adverse selection. The course will incorporate insights from developments in behavioral economics and consider regulation for consumer protection.

Prerequisites: EC 201 or EC 203.

Textbook: *Industrial Organization, Contemporary Theory and Empirical Applications*. By Lynne Pepall, Dan Richards, and George Norman. 5th edition. (There is an e-version at coursesmart.com that is cheaper. The 4th edition is also cheaper and includes most **but not all** of the material we cover.)

Course pack: HBS Cases must be purchased online at <http://cb.hbsp.harvard.edu/cbmp/access/58822524>

Additional Readings: Available through Canvas

Examinations and Problem Sets: There will be three exams – two midterms and a final. The material covered in the final exam will be cumulative from the beginning of the course. There will be 8 problem sets.

<u>Grading:</u>	Midterm 1:	20%	Problem Sets:	10%
	Midterm 2:	20%	Participation & Projects:	25%
	Final:	25%		

Examination Make-up Policy: The following policy will be strictly enforced. (1) To be sure you are not penalized for missing an exam, you must obtain my approval before the exam. (2) There will be no make-up exams for the midterms. If you miss a midterm exam, the weight assigned to that exam will be distributed to the other exams.

Academic Integrity: Cheating on any exam will result in (1) an automatic failure in the course and (2) reporting the incident to the College of Arts and Sciences as required by the University. See <http://www.bc.edu/integrity> for a full discussion of the university's policies and procedures regarding academic integrity.



Professional Standards: Please be on time and no parallel processing (no laptops, cellphones, tablets...).

Policy on Problem Sets

1. Problem sets are designed to help you learn how to apply the material presented in lectures and recitations. You are encouraged to discuss course material, including problem sets, with other students in the class. While problem sets will be evaluated for feedback purposes, the performance will not count towards your final grade. With respect to your final grade, you will get full credit as long as a good faith effort is made and the problem set is turned in on time. The purpose of this policy is to ensure that the work is a risk-free learning opportunity, and to signal my very strong belief that completing the problem sets on your own is an essential part of the learning experience for this class.
2. Handwritten solutions are fine, as long as they are legible and neat. Please remember: if we cannot read it, we cannot provide feedback.
3. In fairness to students who complete assignments on time, late problem sets will not be accepted. You may turn in assignments during class time on the day they are due.

Course Outline

Part I	Perfectly Competitive Markets	Weeks 1-3
Part II	Monopoly Markets	Weeks 4-6
	Midterm 1	Week 7
Part III	Pricing for Real Consumers	Weeks 8-10
Part IV	Game Theory & Oligopoly	Weeks 11-13
	Midterm 2	Week 13
Part V	Additional Topics	Weeks 14-15
	Final Exam	Date varies by section.

Problem Set Due Dates

Problem Set 1	Tuesday Jan 24, in class
Problem Set 2	Tuesday Feb 7, in class
Problem Set 3	Tuesday Feb 14, in class
Problem Set 4	Friday Feb 24, to TA mailbox by 5pm.
Problem Set 5	Thursday March 23, in class
Problem Set 6	Tuesday April 4, in class
Problem Set 7	Tuesday April 11, in class (Question 5 may be omitted. Do for exam practice later.)
Problem Set 8	Thursday May 4, in class (Question 1a may be omitted. Do for final exam practice later.)

Case Project Due Dates

Alusaf Individual Assignment	Submit to Canvas by 5pm Saturday Jan 21 st
Alusaf Team Project	Join team on Canvas by Jan 24 th ; Submit to Canvas by 8pm Wed Feb 1 st
Outsourcing Team Project	Submit to Canvas by 8pm Monday May 1 st
Team Peer Evaluations	Submit to Canvas by 8pm Tuesday May 2 nd

Exams	Exam Date	Review Session (TA, Vera Sharunova)
Midterm 1	Thurs March 2 (in class)	Tues Feb 28 th (in class)
Midterm 2	Thurs April 20 (in class)	Tues April 18 th 6:00-7:30 pm Fulton Hall 415
Final Exam	9:00 am Sec: Fri May 12, 9:00 am 10:30 am Sec: Thurs May 11, 12:30pm	Thurs May 4 th 6:00-7:30 pm Gasson Hall 305



Week	Date	Lecture Topic	Text Book Reading		Other Reading	Assignments Due
			5 th Edition	4 th Edition		
1.	Jan 17	1. Introduction & NPV	2.1 (pp. 19-24) 2.3.1	2.1 (pp. 20-25) 2.2		
	Jan 19	2. Surplus	2.2 (pp. 28-30)	2.3 (pp. 35-37)		
	Jan 21					Alusaf individual assignment (submit to canvas by 5pm)
2.	Jan 24	3. Costs I	4.0-4.1.2	4.0-4.1.2	Salem Telephone: prepare to discuss answers to handout questions (not those in case!)	Problem Set 1 Join a team on canvas
	Jan 25	Last day to add/drop				
	Jan 26	4. Costs II	4.1.3-4.3, 4.4	4.1.3-4.3	Learning Curves in Manufacturing	
3.	Jan 31	5. Demand				
	Feb 1					Alusaf team slides & report (submit to canvas by 8pm)
	Feb 2	6. Alusaf: Team presentations			Alusaf Hillside Project The AI Industry in 1994	Alusaf team presentations
4.	Feb 7	7. Monopoly I	2.1.2	2.1.2		Problem Set 2
	Feb 9	8. Monopoly II				
5.	Feb 14	9. Price Discrimination I	5.0-5.4, 6.1.0 (pp 119-121)	5.0-5.4, 6.1.0 (pp 111-113)	What Supermarkets Don't Want you to Know	Problem Set 3* * This and remaining problem sets are substantially longer.
	Feb 16	10. Market Segmentation	5.5	5.5	**Hornbeck article** [Be ready for class discussion]	
6.	Feb 21	11. two part tariffs	6.1.1	6.1.1		
	Feb 23	12. Package Pricing	6.1.2, 6.2	6.1.2, 6.2		
	Feb 24					Problem Set 4 (TA Mailbox)
7.	Feb 28	In Class Review				
	Mar 2	Midterm I				
March 6-10 Spring Vacation Week						



Week	Date	Lecture Topic	Text Book Reading		Other Reading	Assignments Due
			5 th Edition	4 th Edition		
8.	Mar 14	13. Three-part tariffs; bill shock			Grubb 2012 "Dynamic Nonlinear Pricing..." Tremblay Table 14.3 p 401 and 14.3.3 pp 412-415	
	Mar 16	14. Beta-delta discounting				
9.	Mar 21	15. Paying not to go to the gym			DellaVigna & Malmendier 2006 "Paying Not to Go to the Gym"	
	Mar 23	16. Review lectures 13-15			Recitation for HW	Problem set 5
10.	Mar 28	17. Welfare and pricing for real consumers			Grubb 2015 "Overconfident Consumers in the Marketplace"	
	Mar 30	18. Welfare and pricing for real consumers			Bubb & Kaufman 2013 "Consumer biases and mutual ownership"	
11.	Apr 4	19. GT I	9.0-9.3	9.0-9.3		Problem Set 6
	Apr 6	20. GT II, Hotelling, Cournot, Bertrand, Stackelberg	9.4, 10.1, 10.2, 10.4, 11.1	9.4, 10.1, 10.2, 10.4, 11.1		
12.	Apr 11	21. GT III, entry deterrence, collusion	11.3-11.4, 14.0-14.3, 14.4.2-14.4.3	11.3-11.4 14.0-14.3		Problem Set 7 (Question 5 may be omitted. Do for exam practice after lecture 21.)
	Apr 13	Easter Weekend				
13.	Apr 18	22. Salt (sit in teams)	14.4.3		Ventures in salt	
	Apr 18	Review April 18 th , 6:00-7:30pm, Fulton Hall 415				
	Apr 20	Midterm II				



14.	Apr 25	23. Advertising & endogenous sunk cost			Sutton 8	
	Apr 27	24. Adverse Selection			Frank, "For Obamacare to Work, Everyone Must be In" Ostrom, "Why Washington state's health reform faltered after loss of mandates"	
15.	May 1					Outsourcing Slides and Report (Submit to Canvas by 8pm)
	May 2	25. Outsourcing: Team Presentations	23.0-23.3	25.0-25.3	Principal Agent readings: Economics of Strategy, chapter 14 excerpt; Freakonomics excerpt	Outsourcing team presentations in class. Team peer evaluation forms due on canvas by 8pm.
	May 4	26. Auctions	23.0-23.3	25.0-25.3		Problem Set 9 (Question 1a may be omitted, as this material is not covered before the due date. Do for exam practice later.)
	May 4	Review May 4 th , 6:00-7:30pm, Gasson Hall 305				
<p>Final Exam</p> <p>9:00 am Section: Friday May 12, 9:00pm</p> <p>10:30 am Section: Thursday May 11, 12:30pm</p>						