Course: BA 386 II: Special Topics in Graduate Business
Credit: 3 units, 45 contact hours
Day/Time: Tuesday, Thursday (8 /21-10/16), 15:30PM-18:15
Instructor: Aharon Hibshoosh
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Textbook: Jack Hirshleifer, Amihai Glazer and David Hirshleifer (2015) Price Theory and Applications, , 7th Edition , Cambridge University Press(Several ISBNs are available: ISBN-13, 978 0-521-81864-3 (hardback , : ISBN-10, 0-521-81864-8 (hardback), ISBN-13, 978 0-521-52342-4 (paperback), ISBN-13, 0-521-52342-7 (paperback).

BA 386 – Special Topics in Business Administration (Pricing)

Course description:

Catalog description This course offers topics of specialized interest, including case studies and independent research. Topics vary; so, students may include this in a customized concentration. This course may substitute for a concentration only once with the permission of the Provost. (3 units) Prerequisite: Instructor's permission.

This is a course in Pricing—a key topic in Business. Business thinking cannot be achieved in Marketing, Finance, MIS, and other business disciplines, without gaining a rigorous Economic foundation. The various business jobs require conceptual understanding of Pricing. Students who have taken Managerial Economics have obtained some taste of this challenge. This course can be considered a second course in Micro Economics (Price Theory), which intends to enhance a more sophisticated business analysis in dealing with different facets of Business. Hence, it is most relevant to any business discipline.

Based on prerequisites in Managerial Economics (BA 301) and Marketing Management (BA 304), this semester, this course builds a firmer conceptual foundation for formulating price strategy.   Topics include: utility theory (including Markowitz's MeanVariance Framework), market structures, sales promotion and price discrimination, international pricing, game theory, and auction designs. The course builds foundations in price strategy based on in-depth study of some topics in Price Theory as they apply to marketing problems as well as to other disciplines. It helps the student develop some basic modeling, analysis, and measurement skills. It exposes

the student to the vast literature of Pricing Strategies in Marketing Science, which in turn is related to substantive developments in Economics, Psychology and the basic quantitative disciplines.   Many of the pricing strategies used in marketing traditionally appear in journals and books of these disciplines. The purpose of the literature review is to enhance student exposure to the Pricing Literature, and is not an attempt to develop the student as a pricing modeler.

Methodology:

The course is based on lecture, analytical exercises, academic literature exposure, and observations of current market practices. There will be also an empirical pricing study project which with individual parts and group presentation. It is partially based on a classical Price Theory textbook, and partially on external material in academic and trade journals, as well as my dedicated lecture presentations. HW comes in the form of analytical problem solving, academic and trade literature reading, case studies. A dedicated project would be assigned in the area of the student's specialization.

The spectrum of the instructional methodology is thus quite wide. It will include: a) Review and consolidation of classical results of Price Theory which were derived in the past Managerial Economics courses b) Enhanced mathematical foundation building   c) In depth analytical study of new textbook topics e) Reviewing of some market structures and pricing strategies in the academic and trade literature. This review (e) will focus on qualitatively understanding the nature of key assumptions, qualitative characterization of the analytical methodology and implications of pricing strategies, as well as some empirical positive pricing practices. HW is critical and will vary in nature, requiring analytical problem solving, calibration of models using Excel, detailed literature review of models and practices. There will be both individual and group assignments.

In individual homework, students are expected to first try to solve their problems alone, but then compare their solutions with those of other group members. In case of difficulty, the group should work on the problem(s) together. Answers for some of the problems are provided briefly in the back of the book. The homework is then submitted individually. The group must review the progress of each member weekly, and report the completion of the homework of every member by the homework deadline. In group assignment, the full names of all group members participating in the assignment must appear (Last name first).

HW format: Quantitative exercises including diagrams will be required to be processed in Word and or Excel.   Typically, homework must be typed, unless otherwise specified.

A teaching assistant may be available for this class, in which case, my teaching assistant evaluates assignments under my direct guidance, and issues a preliminary grade. If any student has a question about the evaluator's comments and/or grade, he/she should first discuss it with the teaching assistant, and then with me if there are further questions. My teaching Assistant would be available on weekly bases for reviewing the HW answers with inquiring students.

We are using the CANVAS software for HW collection, submission time monitoring and grade assignments. The HW files are submitted *only* through CANVAS. No hard copy is turned in. Every student must be listed with CANVAS. An adding student must belong to a group and inform the teaching assistant his/her adding status and group number. HW is due by 1AM Tuesday or Thursday as instructed on CANVAS. If you are late, you still may use an automatic extension of 8 hours and submit the HW by 9 AM on Tuesday or Thursday, respectively, through CANVAS. CANVAS has a built in time cut off function and would not allow submission past the deadline or the deadline extension. No further extension would be provided. Hence, any homework passed the due date extension deadline would not be accepted for grading. The hard copy submitted with to CANVAS must be brought to class. It may be examined by the professor at the roll call and would help the students when we review the HW answers in class. Individual students and group may be called to present their HW to the class.

In reporting to CANVAS every student must list on his/her assignment by the following order the following information: Student ID, Last Name and First Name- as appear on the enrolment sheet and group number. In reporting group work all group members must reported on the assignment in this format but only one submission per group is allowed.

Course Learning Objectives

As a result of this course the student should be able to:

1. Derive first and second order conditions for optimization of twice differentiable objective functions with multivariate arguments, with and without constraints. Consequently, understand derivation of Demand and Supply Functions and classifications of Market Structures.
2. Compare the basic approach to proximity and preference measurements in Economics and Psychology. Identify principles of price perceptions and comparisons, based on findings from Psychology, Marketing, and Behavioral Economics.
3. Understand Bid Price optimally in English and Dutch Auctions.
4. Attain familiarity with basic concepts of Game Theory. Identify features of the zero sum game, with pure and mix strategies under expected utility maximization.
5. Identify and compare a Cooperative solution and the Prisoner Dilema solution, in a two rivals game.
6. Derive rival's response functions under various conjectural variations in a duopoly game. Calculate equilibrium in a Cournot-Nash equilibrium. Qualitatively compare this solution with alternative models like the Leader-Follower model and the Stackelberg Solution.

7. Demonstrate knowledge of the assumptions, features and implications of Hotelling's spatial pricing framework.
8. Grasp the basic rationale of modeling assumptions, analysis and implications of various models of voluntary and involuntary price discrimination. Specifically, understand the rationale in optimal couponing with or without multipart pricing.
9. Qualitatively and graphically demonstrate knowledge of principles and conclusions of channel's pricing, as modeled in Staelin and McGuire's based extensions of the model of Downward Successive Monopolies.
10. Learn principles of pricing of Product Lines and Financial Portfolios

	Course Learning Objective	PLO 2	PLO 3	PLO 5	PLO 6
1	Derive first and second order conditions for optimization of twice differentiable objective functions with multivariate arguments, with and without constraints. Consequently, understand derivation of Demand and Supply Functions and classifications of Market Structures	Y	Y	Y	Y
2	Compare the basic approach to proximity and preference measurements in Economics and Psychology. Identify principles of price perceptions and comparisons, based on findings from Psychology, Marketing, and Behavioral Economics.	Y	Y		
3.	Understand Bid Price optimally in English and Dutch Auctions	Y	Y		
4	Attain familiarity with basic concepts of Game Theory. Identify features of the zero sum game, with pure and mix strategies under expected utility maximization.	Y	Y		
5	Identify and compare a Cooperative solution and the Prisoner Dilema solution, in a two rivals game.	Y	Y		Y
6	Derive rival's response functions under various conjectural variations in a duopoly game.	Y	Y	Y	Y

	Calculate equilibrium in a Cournot-Nash equilibrium. Qualitatively compare this solution with alternative models like the Leader-Follower model and the Stackelberg Solution.				
7	Demonstrate knowledge of the assumptions, features and implications of Hotelling's spatial pricing framework.	Y	Y	Y	Y
8	Grasp the basic rationale of modeling assumptions, analysis and implications of various models of voluntary and involuntary price discrimination. Specifically, understand the rationale in optimal couponing with or without multipart pricing.	Y	Y	Y	Y
9	Qualitatively and graphically demonstrate knowledge of principles and conclusions of channel's pricing, as modeled in Staelin and McGuire's based extensions of the model of Downward Successive Monopolies.	Y	Y	Y	Y
10	Learn principles in pricing Product Lines and Financial Portfolios	Y	Y		

Student Conduct:

> ➤ Please participate. What you put into the class will determine what you get out of it – and what others get out of it.
> ➤ Please come **on time.** Late arrivals disturb everyone else. Plan to stay during the whole class period. Attendance may be taken at least one time in of each class. In the case where more than one attendance is taken, only students attending all attendances would be considered as present.
> ➤ Students may not read other materials (newspapers, magazines) during class an no multitasking is allowed.
> ➤ Students are not allowed to come and go during class sessions.
> ➤ If you miss a class, you are responsible for getting notes/slide printouts on the material covered from a classmate in your group.
> ➤ To avoid distracting noise in class, cellular phones **must** be turned off or the ringing mode silenced.

> ➢ During the exam all recording devices of any form must be closed and stored in closed bags. (<u>See also Examination Policy</u>).
> ➢ All class participants are expected to exhibit respectful behaviors to other students and the instructor. All students have the right and privilege to learn in the class, free from harassment and disruption. Inappropriate or disruptive behavior will not be tolerated, nor will lewd of foul language.

<u>Examination Policy</u>:

The exam would include both brief and long questions. Typically the long questions will require mathematical derivation and computations. The nature of the long questions would typically be disclosed to the students in advance. The final would be comprehensive. The midterm would include only chapters covered in the lecture prior to the midterm and associated extra lecture information. The final is comprehensive. The exams are closed book exams with some choice of questions, without a restroom break (or any other break) during the midterm or the final. (I will make alternative examination opportunities where the need for break is medically required and professionally supported by a letter from a medical doctor). No exchange of pencils, erasers and any other material between students is allowed during the exam.   No electronic instrument capable of copying material in any form (in particular, in print or visual image) is allowed in the exam. In particular, cell phones, organizers, calculators, tape recorders cameras, computers, etc. must be closed and stored inside a closed bag. No exchange of pencils, erasers and any other material between students is allowed during the exam.   Likewise, any conduct that constitutes subversion of the exam is punishable in at least a course failure.   These specifically include: Removing or reproducing examination material; communication with anyone with the purpose of reconstructing the examination or any part of it; keeping or using the instructor's past exam questions to prepare for the exam without specific instructor authorization; distributing any examination material; impersonating an examinee or having an impersonator take the examination.   This list is not exhaustive.

 A student violating these requirements should expect an F grade, in addition to other disciplinary consequences.

<u>Grading Guidelines:</u>

Class attendance and participation 10 pts

Homework 30 pts*

Midterm 30 pts

Final 50 pts.

Project 30 Pts

Total course points: 150 pts

The grade will be based on a curve. Gaining the following number of course points would assure the grade:

Course Points	Grade
96 and above	A
90-95	A-
80-89	B+
70-79	B
60-69	B-
50-59	C+
48-49	C
46-47	C-
44-45	D+
42-43	D
Below 42	F

Topics:

 Chapter numbers correspond to Hirshleifer, Glazer and Hirshleifer, Price Theory and Applications

Date^	Topics	Assignments Chs^^
8/21	Introduction to Pricing	1
8/21-8/28	Mathematical Tools	2, Henderson and Quandt's Mathematical Review, and elements of 3, 4, 5
8/21, 8/30	Utility, Reference, and Preference	3 and Handout
8/30, 9/4	Review of Demand, Production, cost and Supply functions	Elements of 4-7

9/4   Market Structures   2, 6, 8, 9, 10,
                                                                                                 and Instructor notes

9/6-9/13   Oligopoly and Game Theory   10, and elements of 16, 17

9/18   Midterm

9/20, 9/27 Hotelling Spatial competition Model   Handout and presentation

9/27 Price Discrimination and Sales Promotion   8 and
                                                                                          Handout and presentation
10/4 Special Topic in Channel pricing-- the Staelin and McGuire Model   10 and
                                                                                          Handout and presentation
10/9 Special topics in Auctions   14 and   handout

10/9, 10/11 Principles of pricing of Product Lines and Financial Portfolios.   Handout

10/16   Final

A special class meeting, beyond the above dates, before 10/16 would be arranged for the individual and group presentation of the empirical pricing study.

Exam Dates:

Midterm: September 18. Final: October 16.

^ The time table is tentative. This is not an exclusive list of topics to be covered in this course. If time permits, I will accelerate the presentation. Alternatively, if necessary, pace and intensity of coverage may be traded off to assure greater comprehension.

^^ The numerical reference to a chapter in the textbook.

Updated: August 6, 2018 The syllabus may be updated in the future as necessary