COURSE OUTLINE

BMA5001 - MANAGERIAL ECONOMICS

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Office Hours: To be announced later.

COURSE OVERVIEW

Managerial Economics as the first year MBA core course is about exposing the students to a rigorous foundation in microeconomics, game theory and industrial organization. It aims to develop students’ capacity to analyze the economic environments in which business entities operate and understand how managerial decisions can vary under different constraints that each economic environment places on a manager’s pursuit of its goals. Its focus will be on analyzing the functioning of markets, the economic behavior of firms and other economic agents and their economic/social implications.

Some motivating examples may better describe than long words and phrases.

Motivation 1: The cost of a Sunday paper ranges around $1.00 - $2.00. And we all agree that it is a good investment to pick up a newspaper, which allows us an access to hundreds of dollars worth of coupons. Coupons (and rebates) are devices to reduce the price of products. But if so, lowering the prices and running an ad on sale would be a lot simpler. Plus, the coupon strategy creates extra work with extra cost for financial officers, cashiers and store managers. Then questions follow.

- Why would the firm not just mark down the prices? Why are some products heavily relying on coupons and others not? (For example, P&G is now restricting the use of coupons.) Why might some of you have never bothered to buy a Sunday paper to clip coupons?
- What coupon value should a firm recommend for its $30 shampoo? If you are one of those Sunday coupon clippers, how would you perceive spot discount and rebates?
- Being one of those Sunday coupon clippers, let’s say you saved $120 – it could be ten times of it if you purchased a TV, a laptop and a printer for the new school semester. Are you truly better off after the shopping?

Motivation 2: Many times, one’s ideal decision depends on the choice of others. To take examples:

- Why are there few successful cartels in reality although firms may have strong incentive to behave collusively? What are the factors that affect the firms’ ability to maintain a cartel?
- Some OPEC countries – like Venezuela – often cheat by exporting more than the agreed quota. However, it may still be in the best interest of big member countries – like Saudi Arabia – not to follow suit. Your strength may turn into a weakness and vice versa. How would you get out of such dilemma?
- Building an extra plant and idling it. A man walking into a bank and showing the teller that he’s strapped with dynamite. Burning his ships by Cortés after he landed Aztec Empire. What is the common feature of these stories? What is the implication?

Students’ appreciation of the analytic strength and practical applicability of microeconomic theory being the main objective, the course accordingly is concerned with both theory and applications. The theory serves to construct a rigorous framework of principles and techniques, and the applications bring real aspects into the classroom through multiple cases and examples from various sources. Students are expected to develop intuitions behind each economic concept and understand the theory to formalize it. More importantly, however, students are encouraged to build ability to apply their learning to the complex business realities.

Knowledge of basic algebra and calculus skills are assumed throughout the course.
1. Lecture Notes prepared by the instructors
The lecture notes will be uploaded in the IVLE site before each class. Students are expected to visit the site regularly, download and preview the materials before they come to the classes.

2. Textbooks
Lecture notes have been created by the lecturer and did not follow a particular textbook. However, the following two books are recommended although not required.


3. Miscellaneous Readings
Additional reading materials will be introduced through the IVLE site. These additional readings are important supplementary learning aids and the students are expected to take these reading materials seriously. Because of the copyrights issue, some materials will be downloadable through E-Reserve, some will be given their URLs of the sources for students’ own download and others will be given in hard copies.

4. Case Discussion
Students are expected to apply their learning to the real situations through the case studies. Materials will be selected from academic journals, newspapers, professional magazines and internet sites etc. Each material comes with a set of discussion questions prepared by the lecturer to fit with each of the course topics. Students will be asked to challenge these cases as a team and present their work in classes. The case articles will be made available through the IVLE site as well.

5. Problem Sets
Problems sets comprise comprehensive questions which will require a solid understanding of the course materials and an ability to reshape them. Problem Sets are not solely for an assessing of your knowledge but should rather be taken as an independent learning vehicle.

6. Free Topic Presentation
Each team is to give a presentation on a topic it selected during the second half of the semester. For the details, refer to the assessment category below.

ASIDE: Informal Economics Books
The books listed below are not required materials for the module but samples of great readings. Students will find each and every copy truly insightful and fun.

- Tim Harford, *The Undercover Economist*, Abacus
- Avinash Dixit and Barry Nalebuff, *Thinking Strategically*, Norton
- Steven Levitt and Stephen Dubner, *Freakonomics*, Harper Perennial
- Steven Levitt and Stephen Dubner, *Super Freakonomics*, William Morrow
**ASSESSMENT**

1. Problem Sets: 15%
2. Case Discussion and Free Topic Presentation Project: 15%
3. Class Participation: 10%
4. Midterm Exam: 20%
5. Final Exam: 40%

**Note on the Assessment Category 1 & 2:**

The assessment categories 1 and 2 in the above – problem sets, case discussion, and free topic presentation – will be based on group-work. Students will be asked to form their own team, the details of which are to be announced later. All the team members are expected to work cooperatively as a group, all of whom would receive the same evaluation for their work regardless of the individual variation in their contribution. You all are possibly subject to a ‘Morally Hazardous’ situation and will be practicing how to overcome such economic problem.

**MORE ON ASSESSMENT**

**1. PROBLEM SETS**

(1) Three to four comprehensive problem sets will be given for the semester.

(2) Each team is encouraged to work on the problem set jointly yet submit one common answer for which the team members receive the same evaluation.

(3) Each answer will be carefully – and with effort – marked, commented and returned. Therefore a typed submission will be greatly appreciated. However, do not bother to type your work unless you are an expert at it. (Your marginal productivity may be much higher at other work and so is the opportunity cost.) Though, a good pen-personship is strongly expected.

**Note: Late submission is not accepted without an exception.**

**2a. CASE DISCUSSION**

(1) Students will be asked to challenge the cases as a team for in-class discussions. Although everyone is expected to come to the classes being prepared for discussion, the assigned teams are to formally present its analysis and lead the discussion. After presentation, each team is asked to upload its presentation materials on ‘Case Discussion’ folder of the IVLE site for other students’ view.

(2) We will have one case per week starting from Week 4. Each team is asked to submit their first and second preferred presentation weeks (like week 4 or week 5 etc). When in conflict, presentation week will be determined randomly.

(3) Evaluation will be based on the overall quality of the presentation – how rigorous, disciplined, creative and how much it is to the points in issue.
**2b. FREE TOPIC PRESENTATION PROJECT**

Whereas typical economics course may stop after giving you the intuition and the proof, we want to see if we can put the concepts into actual practice and application. For this, each team is required to do an independent project – Free Topic Presentation.

(1) Each team picks an issue/case/observation that they believe is a challenging economic phenomenon.

(2) Each team meets regularly to bond, discuss, debate and finally come up with an economic interpretation/analysis of the issue it chose.

(3) The team leader is to submit via email a one-page proposal containing the followings by 16 September.
   - Names of the team members
   - Tentative title of the presentation
   - Brief sketch on the idea/plan of the presentation
   - First and second most preferred presentation dates between Week 7 and Week 13. The instructor will then finalize the presentation schedules based on the students’ preferences. (When in conflict, it will be randomly determined.)

(4) Each team gives a half hour long presentation including Q&A. No written report is required.

(5) Evaluation will be based on how rigorous, disciplined, and creative the analytical idea is from economics perspective. Time-management will also be an important assessment factor. (Five grace minutes will be allowed. However, every minute after 35 minutes will cost 2% of presentation assessment.) All team members receive the same evaluation for the project regardless of the individual variation in their contribution.

**3. CLASS PARTICIPATION**

Students are encouraged and expected to actively and voluntarily participate during the classes. The degree of students’ participation in discussing/questioning/answering will all be counted as an important part of the assessment criteria.

**4. MIDTERM EXAMINATION**

(1) **Schedule (Tentative): 10:00 am – 12:00 noon, Saturday, 1 October**
   (The midterm exam schedule has yet to be confirmed by the MBA Office. And the exam venue is to be announced later.)

(2) There will be no make-up exams for any reason whatsoever. (If you miss the midterm exam after approval by the lecturer, your final exam score will be prorated to cover the midterm yet with 15% penalty. In any other cases, your midterm exam score is zero.)

(3) It is a closed book examination with one sheet of A4 size help-sheet allowed.

**5. FINAL EXAMINATION**

(1) Schedule and venue: To be announced later.

(2) There will be no make-up exams for any reason whatsoever. (If you miss the final exam after approval by the lecturer, your midterm score will be prorated to cover it yet with 20% penalty. In any other cases, your final exam score is zero.)

(3) It is a cumulative examination and the materials after the midterm exam will be given a higher weight.
COURSE TOPICS/COVERAGE

(The coverage is subject to change.)

PART A: PRELIMINARIES

1. Introduction to Market Economy and Managerial Economics (PR: Ch 1 & IP: Ch 1)
   - Motivations to Study Microeconomics
   - Understanding Markets
   - Market Structure
   - Importance of Opportunity Cost

2. The Basics of Market Forces in Competitive Markets: Supply and Demand (PR: Ch 2, 4, 9 & IP: Ch 2, 3, 6)
   - Supply, Demand and Market Mechanism
   - Elasticities and Applications
   - Welfare Measures and Government Intervention (PR Ch 4, pp. 125-136 & Ch 9, pp. 309-342)
     - Consumer Surplus and Producer Surplus
     - Price Controls - Price Ceilings and Price Floors
     - Economics of Tax and Subsidy/Issue of Incidence
     - Import Quotas and Tariffs
     - Deadweight Losses
   - Managerial Implications

PART B: DEMAND, SUPPLIES AND COMPETITIVE MARKETS

   - Consumer Behavior
     - Consumer Preferences: Utility Functions and Indifference Curves, and Marginal Rate of Substitution
     - Budget Constraints
     - Consumer Equilibrium: Utility Maximization
   - Individual Demand and Market Demand
     - Price Changes: Individual Demand Curve
     - Income Changes: Normal vs. Inferior Goods
     - Derivation of Market Demand
     - Consumer Surplus Revisited
   - Economics of Uncertainty and Behavioral Economics – Preliminary Discussion
   - Managerial Implications
4. Production/Cost Theory (PR: Ch 6 – Ch 7 & IP: Ch 4)

- Technology of Production
  - Input Flexibilities: Short Run and Long Run
  - Production Functions in Short Run and Long Run: Isoquants
  - Various Returns to Scale
  - Isocost line and Isoquant: Optimal Input choice
- Cost of Production
  - Which Costs Matter?
  - Costs in SR: TC, TVC, TFC, MC, ATC, AVC, AFC
  - Costs in LR and Optimal Input Choice revisited: Cost Minimization vs. Output Maximization
  - Relation between SR and LR Costs
  - Economies of Scale in terms of Cost Function
- Managerial Implications
- Miscellaneous Issues (may be skipped)
  - Economies of Scope
  - Learning Curves

5. Competitive Markets (PR: Ch 8 – Ch 9 & IP: Ch 5-Ch 6)

- Characteristics of Perfect Competition
- Profit Maximization and Optimal Output Decision
- Derivation of Individual Firm’s Short Run Supply Curve
- Welfare Analysis of a Competitive Market: Economic Efficiency
- Managerial Implications

PART C: MARKET POWER AND PRICING STRATEGIES

6. Monopoly Power and Simple (Uniform) Pricing Strategies (PR: Ch 10 & IP: Ch 8)

- Sources and Measurement of Monopoly Power
- Monopolist’s Output Decision and Pricing Rule
  - Single-Plant Monopoly
  - Multi-Plant Monopoly
- Economic Efficiency of Monopoly
  - Social Costs
  - Rent Seeking
  - Regulation and Anti-Trust Law
- Monopsony (may be skipped)

7. Sophisticated Pricing Strategies with Market Power (PR: Ch 11 & IP: Ch 9)

- First-, Second-, and Third-Degree Price Discrimination and Applications
- Direct and Indirect Segment Discrimination
- Two-Part Tariffs
- Bundling

8. Monopolistic Competition (PR: Ch 12, pp. 443-448)

- Characteristics of Monopolistic Competition
- Short Run and Long Run Equilibrium in a Monopolistic Competition
- Economic Efficiency of Monopolistic Competition
- Applications
PART D: GAME THEORY AND STRATEGIC THINKING

9. Game Theory and Strategic Thinking I: Concepts and Game Equilibrium in Static Games
(PR: Ch 13 & IP: Ch 10)

- Introduction
  - Components of a Game
  - Noncooperative vs. Cooperative Games
  - Normal Form (or Strategic Form) Form vs Extensive Form (or Sequential) Games
- Equilibrium Concepts and Role of Rationality
  - Prisoners’ Dilemma and Equilibrium in Dominant Strategy
  - Maximin Strategy
  - Mixed Strategy (Randomized Strategy)
  - Nash Equilibrium and Its Refinements
  - Coordination Games
- Applications

10. Game Theory and Competitive Strategy II: Games in Dynamic Settings (PR: Ch 13 & IP: Ch 10)

- Equilibrium Selection in Sequential Games
  - Hijacking Game
  - Backward Induction and Subgame Perfection
  - Applications: Centipede Game, Bargaining etc
- Strategic Moves
  - First/Last Move Advantage, Commitment, Brinkmanship
  - Chicken Games
  - Entry Deterring Game
- Strategic Moves to Get Around the Prisoners’ Dilemma
  - Cross-shareholding
  - Most Favored Customer Clause
  - Price Matching Guarantee Clause
- Repeated Games and Folk Theorems
- Examples and Managerial Implications

11. Oligopoly (PR: Ch 12, pp. 441-467, IP: Ch 11)

- Characteristics of Oligopoly
- Strategic Interaction and Importance of ‘Conjectures’
- Oligopoly in Static Setting
  - Price Competition: Bertrand Model
  - Quantity Competition: Cournot Model
  - Collusive Outcome
- Oligopoly in Dynamic Setting
  - Quantity Competition: Cournot-Stackelberg Model
  - Price Competition: Bertrand-Stackelberg Model
- Competition vs. Collusion
  - Prisoner’s Dilemma and Implicit Collusion
  - Price Rigidity in an Oligopoly
  - Price Signaling and Price Leadership
  - The Dominant Firm Model
  - Cartels
PART E : UNCERTAINTY AND INFORMATION

12. Economics of Uncertainty and Behavioral Economics (PR: Ch 5)
   - Attitudes toward Risk and Expected Utility
   - Insurance Problem
     - Full Insurance, Deductibles and Coinsurance (Copayment)
   - Behavioral Economics

13. Auctions (PR: Ch 13, pp. 509-516 & IP: Ch 13, pp. 369-372) --- May be skipped
   - Sealed Bid Auction/Dutch Auction/English Auction and Winner’s Curse

14. Markets with Asymmetric Information (PR: Ch 17 & IP: Ch 13-Ch 14)
   - Moral Hazard Problem (Hidden Actions)
     - Principal-Agent Problem
     - Value of Information
     - Applications
   - Adverse Selection Problem (Hidden Information)
     - Lemon Markets/Insurance
     - Other Applications
   - Incentive Scheme/Mechanism Design: Signaling and Screening
   - Managerial Implications

PART F: MARKET FAILURES

15. Market Failure (PR: Ch 18 & IP: Ch 12, Ch 15)
   - Why Markets Fail ( PR Ch 16, pp. 591-593 )
   - Externalities
     - Positive vs. Negative Externalities
     - Why Externalities lead to a Market Failure
     - Correcting Market Failure due to Externalities
     - Property Rights
   - Common Property Resources
   - Public Goods
     - Characteristics of Public Goods
     - Free-Riding Problem
     - Efficient Provision of a Public Good