

Prof. Hester Zhang

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MRM 22-23 Section A

1. Objectives

The goal of this course is to develop the basic microeconomic tools that are necessary to analyze managerial decisions from an economic point of view. Mastering these tools is essential to be able to take courses in industrial organization, finance, marketing, accounting and strategy at later stages in your Ph.D.

2. Prerequisites

The mathematical prerequisites for this course are a basic knowledge of calculus (e.g., constrained optimization) and a grasp of the elementary aspects of probability.

2. Learning outcomes

Obtain familiarity with:

- (i) classical demand and producer theory,
- (ii) the theory of individual choice under uncertainty,
- (iii) competitive equilibrium,
- (iv) the fundamental theorems of welfare economics,
- (v) game theory,
- (vi) main sources of market failure: externalities, market power and asymmetric information.

3. Competencies

General Competencies

CG1: Acquire knowledge, skills, abilities and attitudes required to conduct research on a global basis in the field of business management.

Basic Competencies

CB9: Students should be able to communicate clearly and concisely their conclusions, underlying knowledge and reasons to a specialized and non-specialized audience.

CB 10: Students should possess the learning outcomes that enable them to continue studying in a way that will be largely self-directed or autonomous.

Specific Competencies

CE1: Understand the concepts of social and human sciences relevant and necessary to carry out research projects of international level in the area of business management.

CE2: Profound knowledge of tools in the fields of mathematics, statistics, econometrics and multivariable analyzes in order to carry out relevant research projects on a global level.

CE5: Ability to understand state-of-the-art research in organization theory published in the top academic journals (Administrative Science Quarterly, Academy of Management Journal, Organization Science, American Journal of Sociology, etc.) and compare and contrast the arguments



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developed in the papers from a logical and empirical point of view.

CE6: Ability to take current management and organizational problems and identify how different theories of organizations can help us understand them.

CE7: Ability to design research programs in the area of Business Management.

CE8: Analyze business phenomena formal analysis tools (logic and mathematics) in order to develop consistent structural theories.

CE9: Knowledge of and ability to use the tools of economic analysis and the classical theory of markets in the analysis of organizations.

CE25: Capability to apply game theories to the analysis of conflict situations of organizations and market related.

4. Methodology

This is a PhD. Level course so the professor is mainly a *facilitator of knowledge*. In other words, the professor is there to guide and assist students in learning for themselves.

For each session there will be one or more chapters of "Intermediate Microeconomics: A Modern Approach" (7th ed) by Hal R. Varian as required reading (the textbook is available in the library). In addition, there will be a Problem Set available for you to practice (you **do not need** to submit the problem sets).

Ideally, you should read the required readings and attempt the problem sets before the class. During the class, we will discuss the material in more depth and try to solidify our knowledge. Finally, after the class you should go back to the Problem set and make sure that you have mastered the topic.

5. Office hours

Coordinate by email.

6. Evaluation

The final grade consists of a Midterm (60%) covering the first 5 topics of the course (see the outline below), and a Final Exam (40%) covering the last 3 topics of the course. Both exams will be individual, open book, 24 hrs. take-home exams.

Even though the exams are take-home, we will not have class on Sessions 11/12 and 19/20 for you to have some spare time to do the exams in case you need it.



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7. Course outline

Varian Ch. 2, 3, 4, 5, 6, 8	
Varian Ch. 18, 19, 20, 21, 22	
Varian Ch. 12, 13	
Varian Ch. 31, 32	
Marian Ch. 24.26	
Varian Ch. 34, 36	
Varian Ch. 20, 20, 27 (in that and an)	
Varian Ch. 28, 29, 27 (in that order)	
Varian Ch. 37	



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APPENDIX: Table of content of "Intermediate Microeconomics: A Modern Approach" 7th ed by Hal. R. Varian

1 The Market

2 Budget Constraint

3 Preferences

4 Utility

5 Choice

6 Demand

7 Revealed Preference

8 Slutsky Equation

9 Buying and Selling

10 Intertemporal Choice

11 Asset Markets

12 Uncertainty

13 Risky Assets

14 Consumer's Surplus

15 Market Demand

16 Equilibrium

17 Auctions

18 Technology

19 Profit Maximization

20 Cost Minimization

21 Cost Curves

22 Firm Supply

23 Industry Supply

24 Monopoly

25 Monopoly Behavior

26 Factor Markets

27 Oligopoly

28 Game Theory

29 Game Applications

30 Behavioral Economics

31 Exchange

32 Production

33 Welfare

34 Externalities

35 Information Technology

36 Public Goods

37 Asymmetric Information