1. TEXTBOOKS

Required: Hal Varian, Intermediate Microeconomics (9th edition)
Addition Readings and Handouts are available on Blackboard

2. COURSE DESCRIPTION

This is a course in microeconomics and its implications for management and strategy – particularly (but not exclusively) in the context of information technology firms. Microeconomics, as discussed in this course, focuses on the models and methods by which managers can analyze their market and organizational environment to make optimal decisions. The key to such optimal decision-making is an understanding of the trade-offs in allocating scarce resources. The core models of microeconomics are fundamental to more applied areas of management such as strategy, marketing, production, and finance.

The course will begin with an examination of the underlying structure and models of competitive markets, and the efficiency and welfare implications of those models. We will then examine economic models that describe firm output, pricing and entry/exit decisions. These models will then be applied to a variety of market contexts, including monopoly, oligopoly, and competition. As we go through this analysis, we will seek to understand the implications of the theory for information technology firms. We will also examine interesting dynamics between information, agents and economic outcomes in the context of game theory.

3. OBJECTIVES

The main objective of this course is to provide a level of economic “literacy” that will allow students to understand and apply crucial economic concepts to areas as diverse as management decision making and finance; marketing and strategy; policy making and social analysis. A second, related objective of this course is to discuss the particular economic characteristics of the IT industry, and to offer tools to understand its processes and mechanisms.
4. GRADING

There are three components of your grade. There will be daily short quizzes, four homework assignments and two exams. The weighting of these components is:

1. Exams 80% (Midterm = 35%, Final Exam = 45%)
2. Homework 20% (4 equally weighted)

Brief extra credit quizzes Up to 5% (12 quizzes total)

Grading for this class will be based on a curve established by the Dean of the Heinz School who chairs the MISM Steering Committee. The mean (average) grade for this class will be between 3.33 and 3.42.

Extra Credit Quizzes are given at the beginning of every class (except lecture 1). The questions for the quizzes are circulated ahead of time. The quizzes will be on a subset of these questions. Students who arrive late will not be given extra time. No makeup quizzes will be given.

Homeworks are due by the time specified. All homeworks must be submitted via Blackboard. Homework submitted after the due date loses 10% per hour or fraction thereof. Homework submitted more than 10 hours late receives a 0. Students are allowed to collaborate, but every student must submit their own homework written in their own words. Students are strongly encouraged to try all of the problems on their own before collaborating. Homeworks are expected to be typed, with the possible exception of graphs, which can be hand drawn. We will use TurnItIn (plagiarism detection software) on homework.

The exams are given during the times specified on the syllabus. While I understand that some of you may have job interviews to do during this Mini, allowing students to take exams at a later time than the rest of their classmates would create unfair advantages. Hence, postponing exams will not be allowed (except in truly exceptional circumstances, in which case the exam will be subject to late penalties in grading). Students will be allowed to bring a cheat sheet to exams. The cheat sheet can be 2 sides in total and must be on standard size paper. During exams all personal belongings must be left at the front of the room. This includes phones, laptops, calculators and all other materials. If you are seen with a device in your possession during the exam, you will be presumed to have cheated. Most students can reasonably be expected to complete the exam without using the restroom. Students who anticipate needing to use the restroom during the exam will be offered a 2-part exam. They will be required to turn in the first part before using the restroom.

Plagiarism and/or copying of another student's homework or another student’s quiz or exam are university offenses. Just don’t do it. Please. It’s not worth it. These rules and the academic integrity standards outlined in your student handbook will be strictly enforced. Violations of these rules or standards are considered a fundamental breach of trust and will result in failure of the course.

5. CLASSES, LECTURE SLIDES, HOMEWORK, AND QUIZZES
Some important notes about classes, lectures slides, homework, and quizzes. First, the
relation between: a) the models and exercises discussed in class, and b) the homework and
the exams is the following: Each homework extends the material and the exercises
discussed in class. Some of the homework scenarios are numerical exercises. Some are
open-ended questions that have more than just one “right” answer. In general, the
homework will make you think – they will not simply ask you to “plug in” a formula and
find a value. Exams will be similar to the homework but shorter, with fewer exercises and
fewer calculations involved.

Second, the relation between: a) the lecture slides and b) the textbooks and readings is the
following: The lecture slides I will provide cover all the topics that will be part of
homework and quizzes, but not all the details. They can be used as a summary of the
relevant topics, but they are not meant to be a substitute for the more detailed explanations
that the textbooks and the readings contain.

6. THEORY VS. APPLICATIONS IN THIS CLASS

The first three weeks of this course will focus on formal models a little more than the
remaining weeks of the course. Formal models will give us the theoretical foundations to
understand the rest of the topics. So don’t get discouraged if you have never taken
economic courses before, or if the first two weeks will appear a bit “theoretical:” the
level of mathematics necessary to do well in this class is actually quite basic, and the
theoretical tools that we will learn in the first weeks will be useful as we will
discuss more practical applications and study concrete market examples in the
second part of this course.

7. COURSE SCHEDULE AND TOPICS

Note: for Varian’s book, the chapter numbers reported below refer to the 9th edition.
If you are using different editions, chapter numbers may have changed slightly.
Please use the title of the lecture to find the appropriate chapter.

Lecture 1 (Monday, January 11)
Topic: Introductions and Demand Curves
Today’s Readings: Varian, Chapter 1, Math Appendix

Lecture 2 (Wednesday, January 13)
Topics: Markets and Efficiency
Today’s Readings: Varian, Chapters 15.1-15.6 and 16.1-16.5

Lecture 3 (Friday, January 15)
Topics: Firm Costs
Today’s Readings: Varian, Chapter 22

Martin Luther King Day (Monday), No Lecture

Lecture 4 (Wednesday, January 20)
Topic: Firm Supply and Industry Supply
Today’s Readings: Varian, Chapters 23.1-23.5 and 24.1-24.5
Review Session 1 (Friday, January 22)
Review of Lectures 1-3 and review for Midterm 1

Lecture 5 (Monday, January 25)
Topic: Monopoly and Monopoly Behavior (Monopolistic Competition)
Today’s Readings: Monopoly – Varian, Chapter 25
Monopolistic Competition – Varian, Chapter 26.7-26.10

Lecture 6 (Wednesday, January 27)
Topic: Monopoly Behavior (Pricing and Price Discrimination)
Today’s Readings: Varian, Chapter 26.1-26.6

Review Session 2 (Friday, January 29)
Review of Lectures 4-5 and review for Midterm 1

Lecture 7 (Monday, February 1)
Topic: Oligopoly
Today’s Readings: Varian, Chapter 28

Lecture 8 (Wednesday, February 3)
Topic: Game Theory
Today’s Readings: Varian, Chapter 29

Review Session 3 (Friday, February 5)
Midterm, covering Lectures 1-5

Lecture 9 (Monday, February 8)
Topic: Collusion
Today’s Readings: Ethyl and Rapid Price Communication

Lecture 10 (Wednesday, February 10)
Topic: Lock-in, Switching Costs, and Strategic Behavior
Today’s Reading: Varian, Chapter 36.1-36.3
Dupont and Computers

Review Session 5 (Friday, February 12)
Review of Lectures 6-8 and review for Final Exam

Lecture 11 (Monday, February 15)
Topic: Asymmetric Information
Today’s Reading: Varian, Chapter 37

Lecture 12 (Wednesday, February 17)
Topic: Externalities, Network Effects and Positive Feedback
Today’s Reading: Varian, Chapter 34
Varian, Chapter 35.4-35.7

Review Session 6 (Friday, February 19)
Review of Lectures 9-12 and review for Final Exam
Lecture 13 (Monday, February 22)
Topic: Behavioral Economics
Today’s Readings: Varian, Chapter 30

Lecture 14 (Wednesday, February 24)
Topic: Research and Development

Review Session 6 (Friday, February 26)
Review for Final Exam

Final Exam Period (Exam Date TBA)
Final Exam covering Lectures 1-13