MECN 430
Microeconomic Analysis
Spring 2019

Professor Dan Aaronson
E-mail: d-aaronson@kellogg.northwestern.edu
daaronson@frbchi.org (best option)

Course Overview

What trends in future prices can you expect for a particular good? Should you increase, or perhaps decrease your production capacity? How should you price a good for which you have market power? Should you expect government to intervene in or regulate your industry? If you change the price of a good, how should you anticipate your competitors will respond to your action -- and how should you respond to their actions? All of these questions are informed by economic analysis. This course will enhance your understanding of important economic concepts while examining their implications for pricing, price leadership, capacity management, market entry and exit, and other key business strategies. Importantly, we will see that competition is fundamental to understanding why markets may function well, and hence business strategy must anticipate the existence and actions of potential competitors in order to create and capture value. We will also understand when to expect governments to intervene in markets because markets fail or because the government had been persuaded to intervene by some key stakeholder. Businesses require the ability to understand, forecast and influence government intervention in their industry. More specifically, by the time you complete this course:

1. You will learn how to construct fact-based, logically grounded analysis of major strategic bets in hypercompetitive markets. We will develop the concepts of short-run and long-run supply curves and relate them to costs.
   - This will allow you to make educated conjectures about the path of prices in such markets, predict the range and magnitude of price fluctuations, and conduct financial evaluation of strategic decisions such as capacity expansion or new market entry.
2. You will learn how to identify the costs categories that are relevant for critical business decisions such as supply, capacity abandonment and exit, and new market entry.
   • The typical costs of a business fall into numerous categories, and mistakes in identifying which of these categories truly matter for a decision at hand can lead to outcomes that impair a business’s competitiveness and destroy profitability.

3. You will learn how the interplay between cost and demand fundamentals determine profit-maximizing pricing decisions.
   • Pricing is one of the most important business decisions and an understanding of the role of economic fundamentals can translate directly into more profitable pricing decisions.

4. You will learn the basics of game theory: how to represent strategic interactions between firms in markets as games and how to determine the outcome of such games using Nash equilibrium.
   • We will use game theory to understand strategic moves key industry players can execute to change the nature of their industry and create win-win environments via price leadership.

5. You will learn when markets fail.
   • We will define and explore the key concept of externalities and study how it underlies everything from global warming to national defense to technology adoption. We will study how business strategy in such environments can influence the evolution of the entire market and create and capture significant value.
   • We will define and explore the key concept of adverse selection. Healthcare and finance are key sectors of the economy where markets can fail because of adverse selection.

6. You will be able to understand and even forecast how government interventions help shape prices and the distribution of value in competitive markets.
   • You will get some insight into how and why a government might intervene in your industry.
   • You will also learn that there is government failure and government intervention can reduce value and create winners and losers. This can help you spot opportunities for using institutions in the non-market environment of your business to capture additional value or prevent the capture of value at your expense by others.

**Weekly Class Preparation**

The material to be prepared each week is detailed in the tentative course outline below. Each assignment is required, unless explicitly described as “optional.” There are several categories; each category requires a different type of preparation, as follows:

**Homework Assignments**

A written answer is required to be submitted on Canvas prior to the beginning of class in which the homework is due. Acceptable formats are Word (doc, docx) and Acrobat (pdf). If the assignment is done by other means (handwritten, Excel), please scan and/or convert to pdf. When no homework or exercises appear in a given session then none are required. Solutions will be made
available on Canvas by the night (after class) the assignment is due, and grades will be posted on Canvas within a week.

I have found that homework assignments are a useful way to get PT students to interact with each other. So I am going to make all homework assignments team-based. Teams will consist of 3 people. I am fully cognizant of your unique locational demands, so please choose your team at your discretion. Only one person per team should pass in assignments but clearly mark who else is on the team.

**Cases**
You are required to prepare all cases covered in this course. Most cases are preceded by a set of discussion questions that should guide you in your preparation.

**Current Affairs**
I will post articles and links to articles as the quarter goes on. These current affairs readings provide illustrations of the ideas in class in contemporary cases. They are 100% OPTIONAL. That said, I really enjoy talking about economically-relevant current events in class and strongly encourage all of you to send me materials that you think might be worth discussing.

**Kellogg Honor and Etiquette Codes**

**The Honor Code** requires that a student not seek an unfair advantage over other students, including but not limited to giving or receiving unauthorized aid during completion of academic requirements; to truthfully represent fact and self at all times; and to respect the property and personal rights of all members of the Kellogg community. I will interpret the honor code in the following ways in this course.

*Exams:* You may study for exams with others. However, once the exam has begun, you should have absolutely no communication about the exam with anyone inside or outside the class. You will be allowed to bring in one 8.5 x 11 inch, double-sided sheet of notes to the midterm. You may bring an additional such sheet to the final.

*Homework:* Group assignments must be done with members of your group only. Do not consult with others who have already taken the course or use their submissions.

If you have questions about whether behavior is within the bounds of honorable behavior, please ask. The watchword should be: when in doubt, ask.

**The Etiquette Code:** Students are expected to respect Kellogg’s Code of Student Etiquette at all times.

- **No electronics.** You may not use laptops, mobile phones, tablets, or related devices in class unless directed to do so. It is distracting to your classmates to sit beside or behind you while you surf, text, or game. Please ask if you would like an exception for notetaking.
- **Punctuality and Behavior.** Class will start on time. It is distracting to your classmates for you to be climbing to your seat and settling in while they are trying to pay attention to the
class. Also, *leaving then returning during class is disruptive* and should occur only in emergencies.

**Course Materials**

1. **Canvas** All readings, required and optional (with the exception of the optional textbook) will be made available on Canvas. Slides will also be made available the day before class.

2. **Optional Textbook:** Besanko, David and Ronald R. Braeutigam, *Microeconomics: An Integrated Approach*, New York, John Wiley & Sons, 2007, third edition. **There is a fourth and fifth edition but it is expensive and the new material is not relevant for the course. If you want a textbook, you should buy a used third edition from, say, Amazon:**
   
   http://www.amazon.com/gp/offer-listing/0470049243/ref=sr_1_1_olp?ie=UTF8&qid=1320685145&sr=8-1&condition=used

   Another (good) option is to rent the textbook via Amazon.

   All the page numbers and references below relate to the third edition but feel free to ask if you want help mapping into the relevant material in the edition you have.

**Attendance and Class Participation**

Attendance, preparation, and participation are expected and represent an essential component of the learning experience in this course. I evaluate class participation based on the *quality of participation*, not its “quantity.” You should provide insights, observations, inferences, or conclusions that not only express your viewpoint, but also defend your analysis. Your comments should be relevant to the topic at hand, and should advance the discussion. A simple opinion or viewpoint is not very valuable without any justification. I value comments that respond to, elaborate on, lend support to, contradict, or correct a comment by one of your classmates. Counterproductive comments include opinions without a justifying argument, pure repetition of previous points, class interruptions that do not advance the discussion and rambling, vacuous or disparaging comments.

I do not cold call in class unless under duress. Look, here is the thing – the class is a lot better when it is interactive. If no one is participating, I will cold call. At a minimum, everyone in class should be prepared to answer all of the preparation questions handed out in advance.

**Missing class:** Try your best to make it to class – Class attendance not only provides an opportunity to participate in the discussion but to learn fundamental material. That said, I understand that work and family sometimes make that impossible, especially as most of us are balancing multiple responsibilities. If you must miss class, you should do the readings, prepare and turn in the assignments on time (late assignments will not be accepted), and arrange to get notes from a friend about what you missed in class. Recall that I will post the presentation slides (and anything else that I hand out in class) on Canvas. Very excessive absences can affect your final grade.

**Grading Components and Guidelines**

*Course score before adjustments:*

This score is based on the following components:
1. In class midterm exam, 40%
2. In-class final examination, 50%;
3. Homework assignments, 10%.

The result is your **course score before adjustments**.

For each student the higher of two scores is used in the final course grade:

1. The score based on the percentages above; and
2. The score with the same weights for homework, but where the final exam counts for 90% and the midterm carries no weight.

This means that the midterm will count only if it can help improve your overall position.

**Class participation adjustment:** Based on contributions to class discussion, the grade may be adjusted to reflect class participation.

**Adjusted course score:** I will take the score before adjustment and add to it participation adjustments to obtain the adjusted course score. Your final letter-grade in this course will be based on this adjusted score.

**Midterm and Final Exams Dates and Guidelines**

**In-class Midterm:** Week 6 class

**In-class Final:** TBD

**IMPORTANT:**
The final exam will be given during the Spring Quarter 2019 Final Exam Period. The precise date(s)/time(s) for the final exam will be determined in the first few weeks of the quarter.

**How to study for this course**

This course aims to give you a fundamental understanding of microeconomics and to apply this knowledge to business decision-making. We do this by introducing new material every week with associated homework assignments. You need to pay constant attention to understand the key ideas and get the most from the course. Here is my advice on how to do this:

**Come to class prepared.** Read the cases and attempt the exercises before class.

**Engage in class discussion.** In terms of participation, everyone is different, I get that. Regardless, engaging means both listening critically to what other people are saying in order to evaluate whether you think their arguments are right, and speaking up when you think you have something to contribute.
**Practice.** When you read the newspaper or see interesting articles on the web, use the fundamental microeconomics you are learning to understand the issues at a deeper level and come up with your own critical ideas (and feel free to discuss those with me). The homework assignments will also help you to do this. They will also prepare you for the exams so you should take them very seriously. Before exams, extra practice problems will be posted on Canvas and you should do them too.
Tentative Course Outline

WEEK 1: COURSE INTRODUCTION – Markets, In-Class Experiment, Consumer and Producer Surplus, Fairness, and Social Responsibility

Readings:
- Besanko, D., “Note on Producer Surplus,” Kellogg School of Management.
- (Optional) Besanko, D., “Note on Economic Profit,” Kellogg School of Management.
- (Optional) Besanko, D. and R. Braeutigam, Intermediate Microeconomics: An Integrated Approach (hereafter B & B), Chapter 2, Section 2.1 (up to shifts in supply/demand); Chapter 10, Section 10.1 (up to excise taxes)

Note: Most weeks, I will provide a list of optional news articles, some that will come up in class and others that are simply for further reflection. A list will be available as we go along. As examples, I am listing some from weeks 1 and 2 below:

Optional news readings:
- Uber’s ‘surge pricing’ may benefit both riders and drivers (Consumer Affairs, 1/3/17)
- Wringing Cash from Life Insurance (NYT, 10/13/17)
- In Iran anyone can sell their kidney for thousands of dollars (Business Insider, 8/26/16)
- All French citizens are now organ donors unless they opt out (Independent, 1/4/17)

WEEK 2: FREE MARKETS - Hypercompetitive Markets, Cost Fundamentals, and Business Strategy in the Short-Run; Demand

Readings:
- (Optional) B & B, Chapter 2, Sections 2.2 – 2.4, Chapter 9, Sections 9.1-9.3

Optional news readings:
- Is the post office making or losing money delivering Amazon packages? (Washington Post, 4/4/18)

WEEK 3: FREE MARKETS - Hypercompetitive Markets, Cost Fundamentals, and Business Strategy in the Long-Run

Homework 1 due

Case:
Readings:
- (Optional) B & B, Section 9.4

WEEK 4: MARKET POWER: Pricing

Homework 2 due

Readings:
- (Optional) B & B, Chapter 11, Sections 11.1 – 11.3, 11.5, and 11.6

WEEK 5: MARKET POWER: Price Customization

Homework 3 due

Readings:
- (Optional) B & B, Chapter 12, Sections 12.1 – 12.5
- (Optional) Big Data and Differential Pricing (Executive Office of the President of the United States, February 2015)

WEEK 6: MIDTERM EXAM

WEEK 7: Price Customization Continued (if needed); REPEATED GAMES; COMPETITION IN OLIGOPOLY; INTRO TO GAME THEORY

Cases:
- Baliga S. and N. Persico, “Budorona”, Kellogg School of Management.

Readings:
- (Optional) B & B, Sections 13.1 – 13.2 and 13.4, 14.2

WEEK 8: PUBLIC POLICY AND PRIVATE ENTERPRISE: Pricing and Product Differentiation continued; Winners and Losers from Government Intervention; Influencing Policy.

Homework 4 due
Case:


Readings:

- (Optional) B&B, Chapter 10, Sections 10.2, 10.4, 17.3

WEEK 9: EXTERNALITIES - Technology Adoption, Standardization and Compatibility.

Case:

- Besanko, D. and J. Horner, “London’s Congestion Charge” Kellogg School of Management

Readings:

- (Optional) B&B, Chapter 14, Chapter 17, Sections 17.1-17.2

WEEK 10: MARKETS AND INFORMATION

**Homework 5 due**

10.1 Markets and Information: Financial Markets, Credit Cards and Healthcare

Readings:

- S. Baliga, “Notes on Adverse Selection.”
- (Optional) B & B, Section 15.3

10.2 Fed Talk (optional)