Tuck *Virtual* Business Bridge Program
Economics Module Syllabus 2021

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The objective of the Managerial Economics course is to give you the ability to apply economic principles and tools in business settings. Many of you will have taken courses in economics, but often those courses do not get into the application of economics to actual business problems and decisions. We will do that...starting on the very first day and continuing thereafter. I want you to leave the course convinced that economics has a lot to offer in business decision-making, and I want you to be confident in your ability to actually use economic concepts and tools. We will cover three main areas of analysis: *principles of cost; price/revenue/profit relationships; and industry analysis*.

You will see from the schedule below that I have virtual office hours once during the time of our course. I am also happy to take emails from you at any time and will do my best to respond to those.

***Topic 1:* Cost/volume/profit analysis.**
Live Video Class Meeting 1

Learning Objectives:

1. To broach the broad theme of economic analysis of business.
2. To introduce the ideas of cost, especially the distinction between fixed and variable cost.
3. To introduce the analysis of revenues, cost and profitability.
4. To be able to apply these ideas to a real company and market.

Readings: "Primer: Economic Concepts for Strategy," through page 31; Mercy Emergency Case.

Videos:

- **Variable/Fixed Costs**
- **Cost/volume/profit analysis**

Preparation before live video session:

- Read the chapter, **"Primer: Economic Concepts for Strategy," through page 31**. Don't stress over this, just try to get a feel for the general approach of microeconomics and some of the core ideas.
- Watch the three videos.
- Read the **Mercy Emergency Case** and attempt to answer questions 1-6.
- In particular, come to the live session prepared to give good examples of cost for the Mercy case that you think will be variable or fixed. Also be prepared to say what the marginal cost of ONE more patient visit per day

will be, and then what the marginal cost of FIVE more patient visits per day. Why are these different?

Topic 2: **Competitive Markets -- Demand & Supply**
Live Video Class Meeting 2

Learning Objectives:

1. To understand the fundamental economic forces of supply and demand.
2. To understand the patterns to industrial adjustment after an external shock.
3. To understand how industry economic characteristics will affect the performance of firms in the industry.

Readings: Competitive Industry Equilibrium (problem set)

Videos:

- **Overview of the situation and analysis**
- **Production and cost relationships**
- **Supply in the immediate run, short run, and long run**

Preparation before live video session:

- Work on the problem: "Competitive Industry Equilibrium." Start by completing the spreadsheet, with graphs of the production and cost relationships. What happens to the price of sockeye salmon when the virus hits the Chilean industry? What happens as time goes on – how does the industry adjust?
- Can you draw/graph the supply and demand curves implicit in this case: Two of the columns in the spreadsheet represent the demand curve, and two represent the supply curve. Which are which and why?

Topic 3: **Competitive Markets: The Oil Tanker Industry**
Live Video Class Meeting 3

Learning Objectives:

1. To see supply and demand in action, in the oil tanker industry.
2. To apply our concepts of supply and demand qualitatively to a real industry.
3. To get a feel for the types of decisions that managers in a competitive industry must make, and for what the impact of those decisions can be.

Reading: General Maritime case

Video:

- **Introduction to the oil tanker case**

Preparation before live video session:
Please read the case and think about these questions:

1. What are some large decisions the managers of General Maritime need to make as they run the company?
2. In thinking about growing GenMar by adding tankers, what do you need to think about? Put differently, how should we analyze the unit economics for GenMar, if the unit is a tanker?
3. What determines oil tanker rates? Be prepared to discuss a FRAMEWORK for thinking of how rates are determined. How does your framework explain the volatility of tanker rates?
4. Why were tanker rates so low in 2009? Were those "equilibrium" prices? What determines how low rates can fall?
5. Would you recommend that GenMar buy additional ships in April of 2010?

OFFICE HOURS AFTER THIRD MANEC SESSION:

In this session, I will go over the first two cases we worked on. We will start by reviewing the Mercy Medical case, and then move on to the competitive equilibrium problem and the oil tanker case. We will also prepare a bit for the electric case, which comes next. Come with questions!

Topic 4: **Competitive Markets -- Pricing in Electricity Markets**
Live Video Class Meeting 4

Learning Objectives:

1. To see supply and demand in action, determining wholesale electricity prices.
2. To apply economic analysis to understand how changes in supply and demand conditions will affect markets.
3. To begin to think analytically about the determinants of profitability for real investments in industries.
4. To understand how real electricity markets function.
5. To see how carbon taxes will impact electric markets.

Reading: Electric Power Generation and Development: A Case in Microeconomics

Videos:

- **Introduction to electric case**

Preparation before live video session:

- See Parts I and II of the case.

***Topic 5*: Consumer Demand and Pricing**
Live Video Class Meeting 5

Learning Objectives:

1. To apply the concepts developed to date to a real pricing situation.
2. To identify marginal revenue/incremental revenue from real data.
3. To create workable market segmentation schemes.

Reading: Cambridge Software Corporation.

Video:

- **Overview of Cambridge Software and key issues**

Preparation before live video session:

Answer the questions at the end of the case. HINT: Read the case, and first try setting up a simple analysis to look first at the question of producing and pricing only ONE version at ONE price.

Look at revenues and costs for the different price levels. That will help you decide what price to charge for any one version by itself, and which version to sell if you produce only one version (and that is a good way to begin the case).

You can think of selling the same version at different prices to different segments, but that might be tough to implement. Why?

Then think of adding more than one version. What happens if you offer more than one version? Who would buy what? Would there be "self selection"? How would your consumers decide what to buy? How do you decide which version of something to buy? This is an important part of the discussion!! Be prepared to defend your assumptions.

Be sure to note the 40% commission if you sell through student bookstores. And take the size of the market to be the sales that you would make to that segment, so long as you price appropriately.

Special consideration given to the team that comes in with the highest profits, conditional upon no unreasonable assumptions being made.

Economics Project Lab:
In this session, we will discuss how economics applies to your company valuation projects. The main areas to think about are:

1) Briefly discuss the nature of competition in your company's industry: Who are the main competitors? Is the industry more of a competitive industry or more monopolistic or oligopolistic? How are prices set in the industry, and have there been any significant pricing changes? Have there been, and are there likely to be, significant industry trends that affect the company (especially in regard to demand and supply)?
2) Most of you will assume that your company will be growing in revenue, cost and profits. Starting with revenues, can you go deeper than simply putting a growth rate on revenues? What is the "engine" of growth? Is it more quantity sold, or price increase? If more quantity sold, what is the basis for the assumed increase?
3) What are the "unit economics" for your company: If growth is coming from selling more units, what are the revenues and costs associated with that growth? (For many companies, growth requires the addition of economic units such as retail outlets, or for a company like Mercy Medical, emergency clinics. It often pays to think about the "unit economics" of units such as retail outlets.)
4) Consider how your answers to the previous questions are reflected in your cash flow forecasts (revenue growth, costs, and investments).